Clinical Reports
"Clinical Reports upon certain forms of Cerebral Disease:"
being an Exercise for the degree of Medicine Doctor in the University of Edinburgh.
by Ricardus Davy, Socius Collegii Regalis Chirurgorum Lond: etc.

Aed Academiam Edinensem. 1862.
Clinical Reports on certain forms of Cerebral Disease.

As some apology from a young student on endeavouring to advance the correct appreciation and treatment of "Cerebral Diseases" may be justly demanded by his instructors, I shall briefly state my reasons for attempting their investigation.

Firstly. Diseases of the Nervous System are of very frequent occurrence in practice and of the gravest importance; their study is invested with an amount of extreme interest; the mere fact of their obscurity stimulating the efforts of physicians, and keeping a pleasurable mental taxation to compete against individual exigencies.

Secondly. The comprehensiveness of the subject calls for the young student's attention; and the unwavering tyro should on this account commence early; his best hope for achieving success and gathering in the harvest of matured investigation consists in his devoting his energies to this special subject during
the fresh and bright morning of his professional career.

Thirdly. From my own firm conviction that clinical study is the only safe basis, and that the hospital ward is the only true arena for acquiring a comprehensive knowledge of the correct mode of practice, I conceive it to be the duty of every aspiring student of medicine to spend many hours daily at the bedside, accustoming himself to critical and patient observation in order that he may arrive at the truth, and guarantee the highest attainable requirement of accuracy. Horace with his masterly perception illustrates this maxim in his refined composition on the Art of Poetry, "Specius inveniis et amicos demissa per auras, quam quae sunt oculis subjecta fidibus, utque fidei fradic spectator."

We can imagine almost that the genial poet advanced this sentiment as a motto for the Roman alumni of Asculapius; it is even now especially applicable, and conveys to our mind forcibly the recognized superiority possessed by accurate clinical observation over the system of teaching Medicine by a routine course of Lectures.
Fourthly. My devoted attachment to the study of Clinical Medicine has I confess partially influenced me, but I trust not unduly.

In these reports I shall follow out the essentially practical and scientific method of entry adopted in the Clinical Wards of the Edinburgh Infirmary; and I may once for all be allowed to state that all these cases have been under my own observation, and have been reported, as far as possible, unaided, by myself in the capacity of Clinical Clerk to Professors Bennett and Laycock, Dr. Addison, Dr. Owen Rees and Dr. Habershon.

During the last year I performed some experiments on the lower animals to elucidate the pathology of cerebral cases; limited space of time has prevented me from making these observations sufficiently complete for insertion in this work; I purpose continuing these experiments at a future period; for I apprehend some light may be thrown on disease of the Nervous Centres by comparative pathology; they were however of sufficient interest to recall to my mind the works of an anonymous
post, "Oh 'tis a pleasant, an exciting thing
"I explore the cause of knowledge, and to
"In paths unexplored, a thrilling joy;
"To track the clues of a concealed truth,
"To find out a law in nature, excavate
"A fossil fact long hid, or overlooked
"By so 'n her keenest quarrymen."

Since the opening of the Clinical wards for the Summer season 1861, we have enjoyed peculiar advantages for the study of Disease of the Nervous system; admirable and typical cases of almost every form of lesion have occurred, and their complete clinical history and treatment have been diligently investigated by our deeply respected Clinical Professors, and explained also with the utmost care and minuteness both at the bedside and in the theatre of the Royal Infirmary.

A short Commentary is appended to each of the following reports; and at the end of this exercise will be found some general remarks on the diagnosis, prognosis and treatment of "Cerebral Disease."
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# Clinical Reports

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Pneumonia. Meningitis.

Margaret Lamont, aged 36, was admitted into the Clinical Ward No XI, under the care of Professor Bennett, on May 15th, 1861.

Clinical Clerk

She was admitted suffering from acute pneumonia, involving the whole of the right lung; during her illness she frequently complained of giddiness; but there was no cardiac murmur.

She was convalescing from her pneumonia in the usual way under the treatment of generous diet and port wine; when on May 22nd, 1861, (13 days from the commencement of the pneumonia) she complained of nausea, cephalalgia, and general distress; with a febrile, hot, dry, profuse perspiration. On physical examination there was dulness at the upper third of the right lung, anteriorly and posteriorly; no crepitation, but tubular breathing and an increase of vocal resonance. A systolic murmur was today heard distinctly over the cardiac apex. Urine not albuminous. Chlorides diminished.

May 23rd. She had a marked rigor at 2 p.m. Her urine was increased to 3vi.

May 24th. She complained today of severe pain...
localized in the right frontal region, and at the inner angle of the right eye; cephalalgia was much
aggravated by coughing; throbbing of the cerebral
pulsie; extreme restlessness, nausea, and persistent
thirst; the skin was febrile and hot, but at times
bedewed with moisture; general muscular tension
which was most marked at the wrists; her
manners are vague, and sentences strangely in
coherent; her fellow patients state that she is
constantly muttering in her sleep. Her face is
flushed, pupils are widely dilated, and marked
photophobia. The constantly moved her lower
jaw, and continued action of the buccinator
orbicularis oris muscles; on interrogation she can
often only reply with a painful groan; the
motion and sensibility of the patient are quite
normal; her tongue is densely furred, and she
refuses all her food. Pulse 90. Irritable.
May 25th. Much the same. She was ordered
by Dr. Bennett - Amodine 1/4 grain 3 times a day
9. p.m. She ceases to have received
her pain; she answered questions rationally
but will not continue answering more than
one or two questions, for she becomes mortally
irritable, and groans loudly.
* Stimulants and bland nourishment were administered.
May 26th. Slight drawing of the mouth to the right side was noticed today; she was more inclined to stupor today, but on rousing becomes quite conscious, and will put out her tongue by coxing. There is however a strange apprehensiveness in her conduct, and she relapses into a condition of helotude.

May 27th. She is much the same as yesterday, but the cephalalgia has disappeared, and she lies unconscious. She passed her urine and feces in bed. At the time of the visit she was quite collected, and answered all questions rationally. Cold to be applied to her head.

1.30 p.m. Delirium supervened, with alternating stupor and groanings; she can still be roused, but immediately her attention is not arrested, delirious moanings recur. Patches of sores on her teeth and gums, tongue dry and brown, features alternately flushed and pallid. Pulse 130. undulating. *

May 28th. Fibrile symptoms with diarrhea set in; very restless and irritable. Pulse 180. The lay moaning during the whole day with her eyes prominent and staring; towards the evening, she became quiet, and ceased moaning; her breathing became labored and rapidly stertorous,
The continued without any appreciable change to remain in a comatose state, and died on May 29th, 1861 at 7 a.m. No convulsions preceded death.

**Post Mortem.** 6 hours after death.

**Head.** On removing the calvarium and dura mater, the surface of the cerebral hemispheres had a flattened appearance, and was considered drier than natural; below the arachnoid over the posterior part of the right hemisphere were two small patches of purulent sequestration. The lateral ventricles contained about 3/4 of fluid; the supernatant portion was tolerably clear and transparent; the middle fluid was turbid and faintly yellowish, and the deepest portion was quite purulent, as proven by chemical and histological examination.

The septum lucidum, the parietes and structures in the ventricles were softer than natural, but otherwise quite normal. On removing the brain, a copious layer of soft yellow, purulent exudation was found at the back of the organ, commencing just at the lamina cruciata, and extending backward to the upper part of the medulla oblongata; the exudation was soft, and seemed as if it had been smeared over the structures. There did not exist any appearance of tubercle.
Aneurismalouch connected
with Aortic Semilunar Valve.

R. Leroy.
deli.
Thorax. Heart of natural size; aortic valves were incompetent. Onlaying the aorta open a small pouch, (see opposite) was found connected with the left semilunar valve, and hanging dependently in the left ventricle. It was of a reddish purple colour. On examining it from the inside of the valve, the lining membrane was found lacerated, and the pouch appeared to be formed by an expansion of the endocardial lining of this valve.

Lung. The left lung was quite healthy. The upper third of the right lung was dark colored and felt solid; on section it readily broke down under the finger's pressure and presented the usual appearances of red fading into gray hepatization. The granulations noticed were very soft. Pleuritic adhesions had formed at the base of this lung, but its appearance was quite healthy in other respects.

Abdomen. The liver, kidneys, and spleen were quite healthy. Adherent to each ovary were several small cystic formations, enclosing a clear serous looking fluid.

Commentary. In this woman, who had arrived at the thirteenth day of a paroxysmal illness.
the whole of the right lung, and who was con-
valersing in the usual manner under the treat-
ment of generous diet and port wine, severe ce-
phalalgia and nausea occurred, preceded by a
distinct rigor. A systolic murmur was also
detected over the cardiac apex. The pupils were
widely dilated, photophobia, profuse sweating,
and incoherent muttering. She sank into a con-
dition of stupor; drawing of the features to the
right side was noted; delirium set in without
convulsions, and she died comatose at the end
of seven days from the date of the rigor.

On postmortem examination the surface of the
hemispheres appeared flattened; and two distinct
patches of purulent exudation had occurred over
the posterior part of the right hemisphere; the lateral
ventricles were distended with purulent fluid,
and their bounding parieties were softened.
Purulent exudation was also found at the base
of the brain, extending from the lamina cunei-
rea backwards to the medulla oblongata.

In short, meningitis of a most fatal character
had developed itself 13 days after the commence-
ment of her pneumonia; I have notes of two
other cases of meningitis following acute
pneumonia; in both cases the apex of the lung
was involved in addition to the base; and in the case now under comment the upper lobes of the right lung had been involved, while the apex alone was affected at the time of the supervenion of the meningitis; with the left lung uninvolved. Whether this pneumonia at the apex particularly of the lung has any special pathological relation to the occurrence of meningitis, I am not at present prepared to say; but as pneumonia at the apex of the lung is generally chronic and has a disposition to degenerate into phthisis, we may fairly argue that the chronicity of the attack would render the patient more susceptible of secondary complications, and that the mere fact of phthisis following in the apex of pneumonia at the apex would indicate a primary diastatic tendency to tuberculous degeneration, so that the occurrence of meningitis in a case of pneumonia (where the apex of the lung was involved) is almost invariably attended with fatal results.

The small auricular pouch previously described on the aortic valve is a very rare and interesting pathological specimen; the cystic

The meningitis occurred.
The treatment pursued throughout was of
a simple character; Beef Tea; cold to the
scalp; and stimulants as soon as jaundice
was setting in. Professor Bennett ordered
die larches to be applied to each temple on
May 25th, (3 days after the accession of her
meningitis) more for the object of clinical
instruction than of benefiting the patient,
and the whole class had another opportunity
of convincing themselves that topical blood-
letting is unable to compete against the
progress of an acute meningitis.

The cold application to the scalp gave
temporary relief, but delirium supervened
shortly after its employment, and therefore
its beneficial effects could not be further
appreciated.
Acute Hydrocephalus.

James Atkins, at 9½ years
admitted under the care of Dr. Owen Bev

Antecedent History. He has generally been a healthy
boy. His parents are both alive, and well; his
father tells the clerk that many of his friends
are phthisical, no hereditary. For his journey to
scarify on the mothers side. Brothers and sis-
ters are strong, sharp and intelligent children.
In 1858 he had a severe fall on the back of his
head, but recovered without any cerebral symp-
toms; and his father's too corrective hand has
frequently solicited the child's head as the me-
dium for enforcing discipline. Towards the close
of the year 1858 he had scabalaria, followed
by slight anacoria. During the present summer
1859 he has complained of pain in his right side
in exertion, and on November 12 th 1859 this pain
was aggravated; he became dull and restless,
complained of a deep seated constant pain at a
joint between the left ear and the outer canthus
of the eye; this mother noticed a cask in his eye,
and complained of diplopia; he got vaeomously
hungry; complained at the same time of nausea and costive bowels. Nov. 21, 1859. Venice.
Mr. Stocker and the clerk saw him in the surgery, and the child looked very ill, and his physiognomy denoted some central mischief.
On admission. Nov. 21, 1859.
Circulatory System. Cardiac dullness natural; sounds healthy; the organ however was acting irritably; pulse was full, firm, and intermittent.
Respiratory System. Pain complained of in the right and left sides below the mamma, which varies in intensity, and is sometimes absent. Chest is resonant, peculiar respiration heard all over the right and left lungs; the respiration was not accelerated.
Digestive System. His tongue was clean & moist. some few of his teeth showed a well marked blue line at margins of the gums (he had been in the habit of mixing his father's color, who is an artist). Appetite and thirst very great. Sense of nausea, but no vomiting. Bowels much confined.
Integumentary System. Evidently a sthenous boy, with a large square unhandsome head, delicately fair skin, blue eyes, sandy fine hair etc.
was dry and hot. Extremities warm.

Gastro-intestinal system. Urine not albuminuous.

Nervous System. He complained of pain in his head which was hot, but not particularly so; he said that the pain was across his forehead; his expression was highly intelligent; his brow was knit, and he appeared singularly abstracted, as if engaged in deep thought. His answers were unusually quick, sharp, and correct. Pupils natural in size, reactive, answering to the stimulus of light; no photophobia. Strabismus of the right eye, from paralysis of the internal rectus on that side. He has also localized pain about the left ear, as thecbuded above.

Mr. Sticker ordered. P. salicyl. e. Cal. grt. st.

Vir. Salic. F. (Gyjo Pharm) sc. q. c. / a.

Milk diet.

Fair to be strained out. Embrocation common caput.

Throughout this night he was restless, but was assiduously attended to by the night nurse, who somewhat pacified him, and caused him to sleep. He lay moaning, complaining of cephalalgia; his hand was placed on his left temple.

Nov 10th. This morning he certainly appeared to be in less pain; his bowels were moved this morning, but no one saw the stool. He had the
same deep seated pain in the region between the ear and orbit on the left side; and the intermittent mammary pain is not relieved. Rules b.4.

Cataleptoma Sinapis & Cina, parte delutae.

Dr. Hess saw him at I p.m., and ordered,

Emplast Cauthard. pone aurum sinistrum.

B.i. Ig. Fori Subpræcatal. mx 3x 8c. Suppl. Mor. Frec. trivi
di. To take his food in small quantities
and at short intervals.

desire. He took his food well; was very irita-
tion towards the night, but slept frequently.

November 23rd. On awaking, after a restless sleep,
he commenced moaning, screaming, and occa-
sional bursts of sobbing; he would not answer
questions, nor take notice of any thing. He
counted some mucoid matter tinged with
blood. He was exceedingly fretful and irritable.
at 7 o'clock a.m. he threw himself out of bed
and remained on the floor of the ward, sus-
ted in a couple of blankets, kicking and
screaming for nearly half an hour; during
which time he passed a dark green stool.
As the morning advanced, these symptoms became
aggravated, and at 11 a.m. his first had con-
scious movements of the right arm, his fingers
shivered constantly. The thumb was inverted.
rigidly on the palm; at times the whole hand and thumb were semi-closed, at others spasmodically straightened. His frontal veins were much congested; the pupils were dilated, especially the right, and he shunned the light.

The respiration was quick and hurried; his pulse varied much throughout the day, was of a jeryy character. Beats per minute from 64 up to 108. He laid moaning, perspiringly, festing, and grinding his teeth; his arms and jystions were both passed involuntarily.

M. Hydary Chlorid. gr. iii. stam. 

Flavinae quinque-tempsibus.

Dr. acetar caput et applic. Glacies.

November 24th. The little boy is much more restless; his features were sunken, his countenance expressionless, deadly pale with transverse flushings. He ground his teeth, had slight twitchings, and moaned at intervals. In the afternoon convulsions came on in eight earnest, the whole body, and particularly the left side being spasmodically affected. Taker 109. very unstable. He was completely unconscious.

At 4 p.m. consciousness returned for a few minutes, he recognised his mother and smiled. "Papa came down to 94. Apparently better."
At 7 p.m. convulsions again returned, and continued with varying intensity until midnight, in some paroxysms the left, in others the right side particularly implicated; on one occasion complete apnoea too was noticed.

November 25th. He slept for 2 hours, until about half past two; he was perfectly unconscious, and would not swallow. At 3 o'clock a.m. his whole body was convulsed violently, bursts of moaning and sobbing, which continued for three parts of an hour. He then fell asleep, completely exhausted. His breathing was convulsive and laboring; and he died without any symptoms of cerebral lesion immediately preceding its occurrence at half past four a.m.

Post-Mortem. 10 hours after death. There was no mark of injury externally; some partial superficial congestion about the head and neck. Head. On removing the dura mater the arachnoid membrane was slightly inflamed, being greasy to the fingers, somewhat opaque on close examination, and its visceral and parietal surfaces here and there adherent to each other. The dural sinuses were engorged with blood. The brain appeared large, or pale and swollen, as when fluid exists in the ventricles. The brain substance
*Histologically the cerebral matter examined showed their normal structure. The parts that were considered to be softened did not contain any granules nor granule cells.
on section was congested, and was considered
to be softer than natural, but in no one part
more than another; there was no inflamma-
tory reaction as was proven by microscopic
examination.* The ventricles contained a slight
appreciable excess of fluid; and the anterior
part of the cavities exhibited a granular sur-
face. Nothing abnormal appeared at the base
of the brain or at the upper part of the spinal
cord. There was no milky studding of the cep-
tum lucidum, nor between the hemispheres.
All the other organs were healthy. The tendons
were anywhere discoverable.

Commentary. This little boy's case was a cha-
acteristic one of acute hydrocephalus; his general
appearance indicated a strumous diathetic
tendency; and very probably various blows on
his head might have excited changes within
the encephalon, which manifested themselves
in the manner described. The encephalon had
occurring in a delicate constitution was especi-
ally favorable for the development of disease
occasioned by injury. Intense cephalalgia came
on, delirium, and convulsions, which con-
tinued with intermissions for two whole days
up to the time of dissolution. The convulsions affected the whole of his muscular system; and consciousness was abrogated completely for 24 hours before death. The treatment pursued was varied, but apparently quite ineffectual. Moderate purgative doses of Calomel, Hippurius quinque, Saline Mixture, Milk diet. Also a mild preparation of steel, a small blister behind the left ear to relieve the deep seated pain; and the local application of Ice to the scalp.

His appetite was very good, and consequently no wine was administered. The milk diet of Guy's Hospital is of a very bland nutritious character.

The post mortem appearances revealed slight congestion of the brain substance, of a uniformly softer consistency than natural; some traces of gum in the ventricles, and limited arach. nitis, presenting itself in a very early pathological appreciable form. No tubercular deposit was discovered, all the other organs being healthy.

These cases of so called "tubercular meningitis" are amongst the most obscure that pathologists meet with; the symptoms during life being usually of a most marked and
striking character, and yet the morbid phænomena so slight or completely absent.
I must confess that I was dissatisfied with the results of the present inspection; Therefore examined the brain and membranes carefully by the microscope and naked eye, but beyond the previously mentioned appearances nothing abnormal was recognised. Two suppositions suggested themselves to my mind.

First. That these cases are indeed forms of true cerebritis, where the inflammatory process has not proceeded further than its first stage; and therefore the non-appearance of the results of inflammation are accounted for by supposing death to occur before such changes have occurred as are appreciable by the eye.

Secondly. That in these cases of acute hydrocephalus some ill-understood change has taken place in the nerve cells, inducing an excessive action, as if it were overcharging the battery in the nerve stimulus; or modifying the polarity of the cells, so as to produce the intense cephalalgia and convulsive symptoms. The morbid phenomena noticed in these cases approximate very closely to those of meningitis.
or surface irritation; probably the large cells on the surface of the external gray matter may be involved, but in a manner as yet unappreciable by the present applied methods of most minute investigation; and I apprehend that advancing pathological chemistry or the study of those singularly beautiful electric conditions resident in all animal organisms may throw a further light on these cases, by demonstrating either the subtle changes in the chemistry of the molecular contents of the brain cells, or by discovering some alteration in the generation of physiological electricity. Such however is the fact that frequently no structural change is demonstrable either by the naked eye, or by the most careful histological examinations, conducted by our most competent and experienced living pathologists.

The immediate cause of death in this intelligent little patient was apparently exhaustion, induced by prolonged attacks of general convolution.

It is much to be regretted that the spinal cord was not removed and examined in this obscure case of hydrocephalus; for many of his
symptoms were explicable by admitting a condition of hyperplasia of the medulla, by whatever cause it might have been induced; as the case stands, its pathology is decidedly open to disputation. I am myself fully convinced that if the medulla oblongata was examined more generally and minutely than at present, many doubtful points in pathology would be cleared up; and it appears surprising to me that some competent and aspiring histologist is not induced to enter upon this new field of scientific investigation, combining (as it ought to do) anatomical and pathological enquiries; it is, I maintain, an extremely inviting subject, because independently of the high interest and nicely connected with its research, it promises a rich reward both of professional fame and self-satisfaction to the man, who confers this signal benefit upon science and his fellow men.
Apoplexy. Two previous old clots. Extravasation of blood into the
Sphenoid Sinus Arachnoid Cavity.

John Smith, aged 56. Married, was admitted under
the care of Professor Bennett on March 12th, 1862
Wednesday at 2 p.m. Clinical Ward No. 1.

(from notes taken by Richard Davy,

Wife's account, given on March 16th, 1862; four
days after his admission.) He has always been
a strong and healthy man, previous to May, 1861,
when he suddenly fell whilst walking; he did
not utter any cry, but fainted at the mouth,
and was quite insensible. When he recovered
after a few hours, both his legs were found to
be paralysed, the left more so than the right.
His mode of speech became slurred, but his
mental faculties remained good. His paralysis
so far occurred as to admit of his carrying
on his business as a house. He continued
much the same until November, 1861; when
he had a second seizure, of the same nature
as the first; but in addition more complete
paralysis of the legs, partial paralysis of
his arms, spasticus, great impairment of
speech, and also of his mental faculties.

In the course of six months (latter end of December, 1861)
He has been a man of temperate habits, has not had syphilis; but he has passed an increased quantity of urine for the last 12 months (during the year 1861.)
He was again able to walk about a little; but his progression was very slow and laboured, and his arms hung listlessly at his sides. He was noted also to be very drowsy and apathetic, but his appetite remained very good, and his general condition rather improved.

Last Monday March 10th 1862, he went away unknown to his wife, and somehow or other managed to reach Dumfries from Edinburgh. She heard nothing of him until the evening of March 11th, when she was told that he had been found the day previous March 10th lying insensible on the road to Dumfries, with one of his sides paralysed; and that he had been admitted into the Royal Infirmary, Edinburgh.

On admission, March 12th 1862, Dr. Simpson and I carefully examined the patient; but we could neither get any information from the patient nor from the man who brought him in. Circulatory System: Cardiac dulness natural. Rhythm of heart regular, a peculiar bright musical sound was plainly heard with the diastole over the aortic valve, sounds are full and rather prolonged, but no bruit can be heard. Pulse 60. Full and somewhat laboring. Radical arteries are tortuous and have a marked relaxation.
feeling; the capillaries of face are congested. 

Respiratory System. The chest was resonant throughout; there was coarse crepitation heard over the left chest anteriorly, and hoarseness of respiration on both sides posteriorly. Breathing regular, somewhat snoring, no dyspnoea; number of steps per minute 13. His breath was extremely fated. Occasional cough.

Digestive System. Defecation naturally performed; his tongue appears large as if swollen; it is densely furrowed at the centre, but the margins are red. Appetite good. Feces passed involuntarily.

Integumentary System. He is a tall emaciated old man; skin is semi-translucent; extremities are cold; left hand little finger quite lusid. Trunk very dirty, smelling urinary, and covered liberally with particulate, slightly moistened with perspiration. No adena. There is a large V shaped scar over the left frontal bone at the point where it joins the parietal; his eyes are dull, and somewhat glazy; capsular opacity of a whitish colour across the right pupil; cornea æmiliae is well marked in both cornea; conjunctiva are of a slight icteric tint, and almost invisible
Granular Tallow Tube Casts.
Triple Phosphates. Compound Arachachate.

R. Darby, Del. Ind. Nat. 330 Diam
to the stimulus of a foreign body, especially on the left side. The capillaries of his nose are injected minutely in an arborosecut radiating manner; there are some small vascular nodes over his trunk, and an isolated papular eruption over his arms.

Genito-Urinary System. His urine dribbled away into the bed. A catheter was introduced, and about one ounce of urine collected. This was found to be densely albuminous; St. Gr. 1013. No sugar. Acid to litmus. Histologically. Numerous large granular and fatty tube casts; blood corpuscles, compound cells, and corpuscles resembling those of pus. Molecular vibratile fibres &c. Many beautiful crystals of the triple phosphate (MgO. K2O. 3H2O. P2O5) Nervous System. His whole aspect is dejected, dull, stupid and drowsy. Manner apathetic and listless; he would put out his tongue and answer questions indistinctly and indifferently; pupils somewhat contracted but answering to the stimulus of light. No paralysis of his trunk nor of the extremities, but his face is distinctly drawn to the right side; occipito-frontalis, corrugator, zygomaticus are acting strongly on this side, leaving the left side comparatively void of expression, and flaccidly vacant; contour of lip diminished on the
left side; tongue directed on protrusion to the left side. His whole common sensibility was deadened; he removed his extremities from any irritating body, but so unconcernedly that it appeared to be quite a matter of indifference to him. His statements are contradictory, and almost unintelligible. Very much inclined to somnolency. Temperature of trunk 84°.
Evacuations passed involuntarily.
He was ordered:
1. Pile Saltpet Comp. 1/2. Static
3. Dry Cupping over the lumbar region.
4. Hot bottles to his feet and legs.
Strong Beef Tea, to be given at intervals.
He remained drowsy throughout the evening.
March 13th 1862.
* He managed to walk about 12 feet in the ward, by supporting his trunk partially by grasping surrounding objects.
in a sleepy, semi-comatose condition, and can not give any consistent account of himself.*

Copolydysuria of urate and phosphates in his urine. He lay on his right side sleeping, with his hand applied over the right temporal region. Dr. Bennett ordered him to be kept quiet to have good nourishment, Beef Tea + Wine 3 scr. P.P. Potassa Sulf. 3 fs. 34c. in die.

He was in great distress. He fell out of his bed, while endeavoring to reach some object.

March 14th 1869. He lies on his back with his hands drawn up in the bed, coughing occasionally, his lower jaw is depressed, face motioless; left conjunctiva much less sensitive to light and touch than the right; both pupils contracted, Pulse 78. The nurse noticed that he swallowed his food much easier when introduced on the right side of the mouth; for when nourishment was given on the left side coughing and hickhick seemed to be produced; he frequently has spasm of coughing after defecation, just as if the upper part of the large had been irritated.

His tongue is clammy, somewhat tough and sticky, looking thick and truncated. There is a limnopathy of the eustachian; he can squeeze harder today with the right than with the left hand.
March 15th 1862. Prolonged and urgent coughing after each act of defaecation. He took off the blister twice last night; but slept drowsily. Pulse very feeble. Occasionally he makes voluntary efforts at micturition, but fails to pass any urine.

March 16th 1862. Tongue this morning was hard, dry, and covered with a coarser, flaky film. He had a peculiar clammy adhesive feel. He is somewhat more conscious. Takes his food and drink readily. Pulse 90, very weak. He makes a groaning sort of noise in breathing; a coarse snoring sound is heard with inspiration; expiration is protracted and cracking. Tongue protruded to the left side. He seems to suffer considerable pain when he micturates. Extremities dry and cold.

March 18th 1862. He continues very much the same.
Skin cool; pulse intermittent. Extreme failure of breath.

March 19th 1862. Sublunar moaning and confused amalgamation of words in articulation. Toine passed almost invariably in bed, yet he says, "that he never did such a dirty trick in his life."
Marked prominence of the right eyeball was noticed this morning. There is a good deal of muscular tremor and agitation; he is restless and querulous. Pulse fee. very feeble.

March 20th 1862. His back was ordered to be anointed with white of eggs and brandy to anticipate the occurrence of bedsores; his pulse continues very variable and intermittent; coarse punyous rales heard at left base of lung audibly with inspiration, loud snoring prolonged expiration; on right side audible sounds rales with inspiration, prolonged sibilis with expiration. His indifference remains unaltered. The heart sounds cannot be separated distinctly on account of the respiratorv murmurs, but its impulse conveyed to the walls of the chest is decidedly augmented, being of a forcible heaving character.

March 21st 1862. Physical exam. of chest posteriorly
Insufficient suffusive inspiration, which is
accompanied with harsh concussive rales, expiration is prolonged and snoring. A peculiar jarring feeling is transmitted on palpation of the right side from the mucus in the air tubes to the thoracic fascia; marked dyspnea; loud groans are constantly uttered. No expectoration. Pulse 102, very feeble and intermittent. Thin cold and dry. Bowels not moved today, urine passed incontinently. He sleeps during the day, but in the evening becomes very restless and troublesome. His thirst is so great, and vivid appetite so depraved, that he was seen to drink his own urine by his fellow patients, and once I saw him try to do so.

March 22nd 1862. Today he will not put out his tongue, but he appears to notice any person coming to his bedside. Pulse 90, very feeble and irregular; groaning constantly; mucus rattle in his throat; tongue dry, rough, and brown. Tongue on teeth and lips; breath most fetid.

Right pupil very insensitive when stimulus of light is applied; so also the left; both conjunctiva also are insensitive to a great extent when touched, but particularly the right; skin is very cold. Evacuation passed in bed. urine was tested today. Normal to test paper. No albumen.
Histologically, numerous compound buccal epithelial scales; molecular and granular material, and small rounded spores of a vegetable fungus, for the most part single, but here and there two or more attached to each other and presenting a beaded appearance.

* Natural size
March 23. Sunday, 1 p.m. He would put out his tongue today, but otherwise much the same.

March 24. To-day he is evidently sinking. His surface is cold and moist, tongue and lips covered with spots; pupils insensitive to light; conjunctiva insensitive when touched; stertorous breathing, and flickering pulse.

He died quietly at 4.15 p.m. No convulsions preceded his death.

Sectio Cadaveris. 2 1/2 hours after death.

Post mortem rigidity about. Body was incarcerated, and semi-jamaicd. Had the appearance of an aged man. gray hair; costal cartilages ossified. Head. On removing the calvarium and membranes subarachnoid serum effusion was noticed especially on the right side of the brain, but also over the whole surface; in addition about 3% of blood had been extracereated on the left hemisphere of the brain, this blood was almost entirely fluid, and had gravitated to the posterior part of the hemisphere. There was one small congelated lamina of blood over the middle of the left hemisphere, close to the median fissure. This clot was not decentered, but was adherent to the arachnoid covering the
convolutions. Funeta vascular was more numerous than usual, and the vessels near the surface were unreasonably rigid, several of them standing out, and remaining patent after section. The cerebral convolutions were softened outside, and the substance edematous; both lateral ventricles were considerably dilated; about 3/4 of an inch in each; the foramen of Monro was dilated to the size of a six-shilling piece.

On removing the brain from the skull, the dura Magic extravasation on the left side extended down to the base, lying in the middle and posterior fossa, forming a thin-coagulated layer varying from about 1/8 of an inch. Blood vessels at the base of the brain were rigid, enlarged, projecting prominently, evidently loaded with atheromatous deposit, as was proven by microscopical examination; there was no calcareous degeneration.

On slicing the left hemisphere at its anterior third some of the convoluted gray matter and the adjoining conducting white matter was found of a faintish-yellow color, and partially softened; on again slicing the same part an old aseptic cavity was found into, of the size, shape, and colour of an adult supra-axial capsule;
Rhombic Columns of Hematoxine
from old apoplectic cyst situated in the left Hemisphere.
24 Days, at not dept.
It was on a level with the upper surface of the corpus callosum; at one point it urged close upon the gray convolutions, and some change had evidently formerly taken place from the vessels supplying the gray matter. Histologically, the cavity was lined by a thin, somewhat elastic, distinct membrane, which presented on section a heavy fibrous arrangement. On scraping the inner surface of the investing cyst, yellow granular pigment, granules, molecular matter, and beautifully defined, sharply cut rhombic crystals of hemoglobin were noticed. See opposite.

Internal to this cavity was noticed a patch of brown colored fluxing, about the size of an almond, which on microscopic examination was found to consist of detached uncinately well-marked nerve cells, fibres, blood vessels, granular matter, and compound granular corpuscles.

On entering the right lateral ventricle a small brownish-yellow staining was seen at the margin of the posterior part of the corpus striatum and corresponding part of the optic thalamus, the lining membrane of the ventricle was much thickened at this spot, and infiltrated with
some gelatinous yellow, colored material. Histologically, this matter was composed of some granular yellow pigment, and crystals of hematochrome.

On opening a section of the right corpus striatum a small aseptic cyst of the size of a large pea was recognized, having a distinct outer brown colored investing membrane, and holding within it a brownish material, which presented the same histological appearances as the one situated in the left hemisphere - vide supra.

The parts contained in the left ventricle were superficially healthy, but on slicing the corpus striatum, a small softish spot about the size of a caster-oil seed was noticed, presenting a dirty white appearance; the surrounding matter was quite different, and histologically consisted of multitudes of compound granular corporules.

Thorax. For the following notes of the condition of the thoracic and abdominal organs I am indebted to the kindnaps of Dr. Fielden.

The heart was enlarged, weighing 15 1/2 ounces.
The valves were natural, and the hypertrophy was entirely owing to the increased size of the left ventricle, the cavity of which was dilated, and its papillae thickened. The right ventricle was of normal dimensions. There were a few smooth atheromatous patches on the anterior flap of the mitral valve. Atheromatous and calcareous degeneration of the aorta was seen just above the semilunar valves; at several points the lining membrane of the aorta had given way, leaving the calcareous matter exposed. There were old cellular adhesions at the apex of each lung, corresponding to puckering in the pulmonic lumen. On cutting into the apices, some old calcareous matter was found, t in the left lung a cavity with thick walls of thick white fibrous tissue, about the size of a pea. Euphysyoma at the margins of the lungs. The bronchi contained much mucus, pusulent matter; and the bronchial mem- brane was much congested.

Necropsy. The liver weighed 2 lb. 8 oz. Its surface was smooth, capsule thickened, and substance harder than natural. On micro-scopic examination, there seemed to be more fibrous tissue than usual, especially accompanying
the results; the cells contained much granular matter, but very few distinct fat globules. The kidneys were very small, weighing 5/2 ounces. The capsules were removed with difficulty. The surface of the organs had a somewhat rough indurated feeling; the vascularity was regular, there were no opaque granulations, but two or three small cysts were visible. In sections much fat was found in the pelvis of each kidney. The cortical substance was much atrophied, forming a thin line around the surface of the organ.

Microscopically. The amount of fibrous tissue was much increased; the capsules of the Malpighian bodies and the coats of the vesicles were thickened, and the fibrous stroma (Goebber) of the gland was increased. Only numerous cysts of all sizes were seen, in most of which the lining epithelium could be clearly made out. The tubes were contracted and much fewer than natural; the tube casts were numerous, the epithelium was granular, but there was little fat.

Islet natural. No other lesions noted.
Commentary. This old man's case was interesting not only by reason of his present attack, but also from the fact that he had previously recovered from two preceding ones, and the case illustrates both historically and pathologically three distinct attacks of aphoplexy, clearing itself up in a very satisfactory manner.

1st Attack. May 1861. Insensibility, both legs paralysed, the left more than the right. Mental faculties but little impaired. Recovered, so as to continue his trade.

Pathological condition. Limited softening from extravasation of blood into the right corpus striatum.

2nd Attack. November 1861. Paraplegia more complete, partial paralysis of arms, also marked impairment of mental faculties. Pathology. Extravasation of blood in the left cerebral hemisphere close to the gray convolutions. Extravasation of blood into the right corpus striatum; softening on the outer side of the left corpus striatum.

3rd Attack. March 1862. Albuminuria. Most extreme apathy, listlessness, and loss of higher mental faculties, but capability
of putting out his tongue and answering ques-
tions indistinctly; so that he responded to
the impulse of solicitation, but had not the power
of generating it. Facial Paralysis on the left
side, but no loss of motor power of extremities.

Pathological Condition. Extravasation of blood
into arachnoid cavity and at base of brain,
especially on the left side, subarachnoid
serous effusion, softening of convolutions,
ventricles of brain dilated; Atrophy of the
arteries, and contracted cystic kidneys.

In the middle part of the Clinical (Winter 1862)
Session I noticed extravasation of blood in the
arachnoid cavity, and sub-arachnoid serous
effusion in a case of general paralysis. Ward XXXI.
The occurrence of Albunimuria in these
cases is rather the rule than the exception.

But it was curious to observe that on March
22nd the albumin disappeared from his urine,
and that on March 24th he died. The secreting
parts of his kidneys were much atrophied, and
the organs were small and contracted; bearing
out the joint very frequently observed that
in the worst cases of Bright's disease you
have no albuminuria. There seems without
any doubt a close connection between albuminuria
and atheromatous and fatty degeneration; they are usually concomitant; and a most interesting proof of this is found in Obstetric Practice, for in cases of albuminuria occurring in primiparae, death to the child is a common coincidence; why? because although the albuminuria has at the utmost existed only nine months, yet fatty degeneration of the placenta has ensued, involving the minute capillaries, by which degeneration the placenta is rendered incapable of performing its oxygeuning function, and therefore death to the infant is certain.

There is yet one point to which I would draw attention, namely, the facial paralysis on the left side; why should the peripheral symptoms have occurred on the same side of the face as that on which the lesion existed? I believe simply because the extravasated blood having gravitated down to the floor of the skull, the nerves were directly influence from their deep origins.
James Dunne, age 33, Composer, native of Edinburgh. Admitted into the Clinical Ward No. 1, December 2nd, 1861, under the care of Professor Laycock.

From notes taken by Richard Davy.

Antecedent History. Wife's account. Patient's father was a butler, and died of apoplexy at an advanced age. Hereditary to drink whiskey regularly every Saturday night, and was often intoxicated on the Sunday. On December 1, 1861, he had been drinking freely during the whole day; the following morning he awoke in his usual spirits, ate his breakfast well; did not complain of any pain but left the house for his work apparently in perfect health.

At 7 1/2 past nine a.m. just as he was starting he requested his wife to give him a glass of whiskey to steady his hand; his wife recommended him not to do so, and he readily complied.

The man himself states that while engaged setting his type at 10 o'clock a.m. he suddenly felt faint, giddy, and completely lost the power of his left arm and leg. He did not vomit, not have any convulsions, but felt...
somewhat confused. He had suffered from occasional headaches, but there were no premonitory symptoms to his present attack. He was brought to the Infirmary at 11 a.m. At the time of the visit, he was perfectly conscious; it was noticed that he yawned frequently during the exam., as if very sleepy. On admission 28-2nd 1846.

Cardiac system. Natural; there was not any murmur with the heart sounds, but a distinct harshness with the systole over the aortic valve. Pulse 95 per minute. Full and compressible.

Respiratory and Digestive System. Natural.

Integumentary System. Face rather flushed but the temperature of the body was lowered. Muscular system well developed.

Genito-Urinary System. He passed his urine voluntarily; the secretion had a healthy appearance. Sp. Gr. 1020. Not albuminous.

Nervous System. Complaints of cephalalgia. His speech is considerably affected, thickness of articulation, liquids pronounced very indistinctly. Tongue was protruded to the left side. No loss of consciousness, nor impairment of intellectual functions. Pupils somewhat dilated, responding to the stimulus of light.
Here is complete hemiplegia on the left side, the facial muscles are flaccid and unexpressive; the sensitivity of the parts unimpaired, excepting that on irritating the left nostril he did not attempt to sneeze. He was constantly yawning, and was unconcerned in manner.

He was ordered. 

_Uccellae ad 5viii._

_Dry cupping between the scapula._

_Cataclasma Sirupis - mucho applicandum._

_Ri. Olei Iserbuthine - 5ii._

_Oleii Ricini - 5i._

_Aqua Ave - 0.7. M. pro secrete._

2 clock p.m. After the bleeding his pulse sank to 80 per minute; and subsequently to 60, when it became feeble and fluttering.

3 p.m. He became restless, and frequently got out of bed; but was easily persuaded to go back to it and lie down.

4 p.m. Rigidity of the left arm was noticed, by no means insuperable, but giving a marked feeling of toxicity in the muscles on extension. His countenance was pallid. Respirations were short but deeply drawn. Pulse very feeble, 38 per minute! he was evidently sinking into a comatose state; pupils moderately dilated and very sluggish. Faces passed involuntarily.
He was ordered 3 1/2 of brandy and water.
Hot bottles to feet. Head raised on pillows.
4.30 p.m. Brandy was given assiduously in
small quantities passed well back in the pha.
ryn. His breathing became stertorous, face
alternately flushed and pallid, profuse
clammy perspiration; pulse exceedingly small
and feeble. 45 per minute; these symptoms
continued up till 6.30 p.m. when he died
comatose without any convulsions.
Post Mortem Appearances. 18 hours after
death.
Post mortem rigidity present. Body that of a
well built powerful man, muscular system
well developed, and nicely proportioned. The
numerous ecchymosoid spots about the size of a shilling
but irregular about his legs and arms. This was
especially well marked on the right arm where
the amputation ligature had been placed.
Head. On removing the calvarium and dur
mater, the cranial areas looked very turgid;
there was flattening of the convolutions of the
brain, and the right hemisphere was more
bulbous than the left. On slicing off the
upper portion of the brain, a large effusion extravasation
of blood was found in the substance of the
right hemisphere. The right lateral ventricle was then opened, and in it a lengthened clot about 1/3rd of an inch in diameter was lying compressed, between the corpus striatum and the septum lucidum. On careful examination a small lacranted spot was seen at the outer and posterior part of the corpus striatum and at the outer part of the optic thalamus on the right side; the blood had been extravasated into the right hemisphere at this point, lying in the cerebral mass as a large clot, of jelly-like consistence and claret colour; the serum had separated from the clot, and altogether about four ounces of clot and serum were removed. Histological appearances, see opposite.

The left hemisphere was next opened, but nothing abnormal was found; the lateral ventricle was opened, and some serous fluid restored. The septum lucidum bulged somewhat to the left, and the extravasated blood in the right ventricle could be seen through it. There was not any blood in the third ventricle.

The arteries at the base of the brain were quite healthy; so also were the large ganglia.
Thorax. The lungs were quite healthy.
The heart weighed sixteen ounces. The left ventricle was hypertrophied; its parietes thickened but cavity of the natural size (eccentric hypertrophy). The cardiac valves were all quite natural.
Abdomen. Liver, kidneys, spleen, and intestines were all healthy.
There were some dark dots found in the ascending vena cava.

Commentary. This case illustrates in a very instructive manner the second form of apoplexy so lucidly described by Dr. Auer, crumblie, and by him called, "cases not primarily apoplectic." It is interesting to observe that the patient's father died of apoplexy; and I have notes of many cases of apparently hereditary predisposition to this disease.
There was no marked loss of consciousness on his being first seized with the attack; he felt however giddy, confused, and complained of headache, and was suddenly afflicted with complete hemiplegia on the left side; sensibility uninjured, excepting that of the facial branch of the fifth on the left side. He remained
quite conscious for six hours after his first
seizure, but the paralysis of the left side
continued, and during this interval he
was bled to eight ounces, his pulse being
full but at the same time compressible.
At the conclusion of these six hours rigidity
of the muscles on the hemiplegic side was
marked, which had not originally existed;
and evidence of supervening coma was ushered
in; he gradually became more deeply comatose
and died eight and a half hours after the
occurrence of confusion and paralysis; no con-
vulsions preceded his death; but profuse
sweating of the whole surface, and especially
of the features was remarkably exhibited.
The treatment consisted in applying counter-
irritation to the base of the neck; in the use
of a stimulating purga; the employment of
moderate constriction, and the subsequent
exhibition of stimulants.

The post mortem appearances were exactly such
as might have been expected: viz. laceration
both of the structure of the corpus striatum
and optic thalamus on the right side, with
sanguineous extravasation into the right
cerebral hemisphere, and into the right lateral
ventricle; serous fluid in the left lateral ventricle; the arteries at the base of the brain were unaffected, and the other organs were quite healthy.

With regard to the operation that was practised in this case, I imagine that Professor Laycock ordered it either pro formâ or for the benefit of his clinical class, that they might be convinced of its inefficacy; the main pulse prior to the operation was 95, full and compressible; it sank immediately afterwards to 80, and subsequently to 60 per minute, when it became feeble and fluttering, eight ounces only of blood was removed. But even this carefully practised operation did not arrest the subsequent extravasation, although the force of the general circulation was diminished, as shown by the altered character of the pulse and its diminution of 35 beats per minute, for in two hours and a half afterwards the patient becomes exceedingly restless, and in four and a half hours afterwards the extravasation was clearly demonstrated to be re-occurring by commencement of his comatose symptoms; besides it has always appeared to me unphilosophical treatment
to be blowing alternately hot and cold; for this same patient has subsequently to be treated with stimulants, under which treatment he continued to live for two hours.

The profuse perspiration occurred in this patient as a precursor of dissolution; this symptom is of great service to the physician when called upon to give a prognosis, and in the very many cases of apoplexy that it has been my privilege to watch, it has never been found absent when carefully looked for. This peculiar phenomenon implies a correct interpretation of the serious involvement of the vasomotor system of nerves, influenced in all probability by the condition of the brain through the medium of the cardiac sympathetic centres.
Apoplexy. Aneurism of the Aorta. Cerebral Softening.

Frederick Birkert at 48. Passed under the care of Professor Bennett, on June 9, 1861, at 12 o'clock, in room from notes taken by Richard Davy.

Antecedent History (from one of his friends).

He had been an habitual drunkard, but possessed an originally good constitution, and has usually been healthy. He has drank harder than usual during the three months prior to admission. About the middle of May 1861, he was first noticed to complain of palpitation, dyspnea, and a feeling of tightness about the chest. He has lost his appetite, and is annoyed with a constant pain in the hypochondriac region, which he likened to his body to be firmly girth. On June 8th he had been drinking whiskey but was seen sober between 12 and 1 o'clock. At 2 p.m. while in one of the shops in the Old Town, he suddenly staggered, and said to the attendants "I am getting dizzy!" he would have fallen but for the prompt assistance of his neighbours. He could not speak nor sustain himself; he was therefore
placed on the floor, and a medical man was sent for. He there lay senseless, and not uttering any complaint; his face was pale, pulse very feeble, skin moist and coldly perspiring, respiration labored but no stridor; no convulsive movements. He was conveyed home and when seen by Dr. Gordon, about an hour after his seizure, he was becoming conscious, tried to raise himself in bed, and answered some questions indistinctly. Dr. Gordon ordered him a glass of whiskey, hot bottles to his feet, and beef tea. About 3.30 p.m. he was semi-conscious, muttering, asking for tobacco, and water to drink; his evacuations were forced involuntarily. He remained very restless until 9 p.m.; his limbs and body then became warm, and his face assumed its natural colour. Vomiting came on during the night; small strongly of spirit; he continued restless and delirious throughout the night, but was given beef tea at intervals which he swallowed. He was brought to the Infirmary on June 9th 1861 at 12.30 p.m.

On admission. Circulatory System. Cardiac dull at 93° transversely, two and a half inches, there is a soft systolic souffle heard with equal intensity at base and apex. Pulse 82, regular and regular.
Respiratory System. Resonance of chest natural. Respiration 40 per minute, healthy in sound and rhythm; not at all stridorous, no cough nor expectoration. His expirnd breath was so tired by all to be very fested.

Digestive System. Tongue festered, especially along the median raphe; thin white moist fur coating the whole surface. Appetite good. Thirst is much complained of. No dysphagia. Abdomen organ measures vertically 5 inches, no pain on percussion. Feces are passed in voluntarily; dark and offensive stools.

Integumentary System. Surface is cold and moist. He is not at all jaundiced. He lays in bed with his eyes closed, but will open the lids when asked to do so; pupils natural, eyes suffused. Thumbs and index finger of right hand were destroyed by a former gun shot wound in Bengal.

Genito. Urinary System. He cannot pass his water when requested to do so, consequently the catheter was passed and a considerable quantity of bright, yellow urine was drawn off; showing on applying the proper tests the presence of albumen in large quantities. No bile nor sugar. Chlor. Gr. 1020.
There was no special paralysis noticed on either side, he could move all his extremities imperfectly.
Nervous System. He is quite conscious and will answer questions or do what is requested of him. Features are symmetrical; voluntary motion is only partially involved, for he can stand without assistance, but staggers when left to his own resources; sensibility is quite perfect; pupils obey the stimulus of light; some restlessness about the patient, but no intractability. On examining the vertebral column he did not complain of any pain. He was ordered Beef Tea ad libitum. To maintain the recumbent posture, hot bottles to his feet and limbs. 4 p.m. Many times he tried to leave his bed, but was easily persuaded to lie down; he shows a disposition to stupor and somnolence; but starts up apprehensively during his sleep. Pulse 90, weak. Surface of body cold.

June 10th 1861. Today he is gloomy and taciturn. He complains of want of sleep, urine and feces passed involuntarily. Some urine was again drawn off today; its color was dark red, no blood, but albumen as before. June 11th 1861, He states that he is "first rate," and that as far as he can feel there is nothing the matter with him. He cannot
obtain any refreshing sleep; his pulse is very feeble. 80 per minute. To be given Esmeralda
Pernicium Instaria Opia - MxL. Stattum
notec. 11.30 p.m. Dr. Hardie, the resident
physician was sent for, and found the man
complaining of extreme general orphalalgia,
uncontrollable restlessness and anxiety. Dr.
Hardie ordered a belt to be placed around
his bed and person advisedly, to prevent
any disturbance in the ward. At 3 a.m. main
June 12th, the male attendant noticed the
man's hands and feet very cold, and consi-
dering him to be very feeble again summons
Dr. Hardie, who found him pallid, and in
an extreme state of collapse; his whole body
was cold and clammy; pulse at both wrists
almost imperceptible; consciousness unaffec-
ted, breathing not hurried, and no localized
pain complained of. He gasped out to the
house physician "I can't tell you what is the
matter with me"—he was evidently sinking;
hot bottles were assiduously applied, and
Brandy freely administered: under this
treatment he revived, remained tranquil
until 5 a.m. when he died apparently
from syncope.
Post Mortem. 32 hours after death.

Head. On examining the calvarium and dura mater a little blood was noticed beneath the arachnoid membrane. At the posterior part of the left cerebral hemisphere close to the surface were seen two mottled patches of a deep red color. On section the larger patch was at the junction of the anterior third with the middle two thirds of the hemisphere; and was about the size and shape of a Spanish chestnut. The abnormal appearances extended quite to the periphery of the hemisphere. The second red patch occupied a position posterior to the first, and was not larger in size than a hazel nut. On removing the pia mater and arachnoid the corresponding gray matter was found softened and of a reddish uniform color; while in the surrounding white matter were numerous minute hemorrhagic extravasations.

Histological Examination. The arterial coats were much thickened, and studded with fatty granular material. In the softened gray matter only, numerous compound granular corpuscles were seen; in the white conducting matter, numerous blood corpuscles separating the fibres. The rest of the Brain was healthy.
Thorax. On removing sternum the pericardial sac was seen enormously distended and on cutting it open twenty-two ounces of coagulated and fluid blood mixed were removed from it. The aorta was evidently dilated, and gave origin to a small aneurism, which had ruptured by a small opening an eighth of an inch in diameter close to the line of reflection of the pericardium. This aneurismal sac was situated about an inch and a half above the aortic valves; it was a little larger than a boy's marble, and its tunic had given way at the apex. There were no fibrous clot in the aorta nor in the aneurismal sac. The ascending aorta had its coats much thickened by conversion of its lining serous membrane into calcareous scales. On tracing the main trunk through the thorax and abdomen, patches of atheroma studded the tunic sparingly. The heart weighed sixteen ounces. The abdominal organs, lungs, and spleen were all quite healthy.

Commentary. This case of an intermedrate campaigner illustrates the early phenomena
it was associated of an attack of apoplexy; with the very interesting but fatal complication of aneurysm of the aorta, the sac of which had burst into the pericardial cavity, death not resulting from coma, but from syncope. His history may be summarized as follows. In May 1861 he is first annoyed with constant pain in the hypochondria, and around his trunk, which he compared to a belt round his waist. This occurs as a common symptom in advanced aneurysms, and is pathologically dependent on pressure made upon the intercostal nerves, which supply with nervous filaments the intercostal muscles, and the cutaneous sensibility of the anterior portion of the thorax. Hence, as the pressure on the trunk of any nerve morbidly influences the peripheral distribution, the pain is satisfactorily accounted for around the chest, and in the hypochondria, & epigastric regions. The laryngeal symptoms are explained by the ischiophysisation of the recurrent laryngeal of the carotid. To resume, in June 1861, while standing in a shop he suddenly staggers, loses the power of sustaining his trunk, and becomes insensible; he remains in a brain-comatose
state for an hour; but as vomiting, asthenia, and delirium supervened, on the following day he is admitted into the Royal Infirmary. He was then quite conscious; unable to stand, but somewhat restless; systolic murmur was heard over the cardiac organ, urine albuminous. His restlessness increased, voluntary control over the sphincters was lost; although his manner was jovial and euphorious; and in three days from the date of the seizure his restlessness was so great that mild restraint had to be enforced; soon after (3 hours) its application his auricular burst, and in two hours from this time he was dead.

The treatment pursued was very simple and natural: Beef Tea ad libitum. Hot bottles to his feet and limbs; and the recumbent position recommended and enforced.

The use of stimulants, however, as employed by Dr. Gordon, when consciousness was returning, was I think uncalled for; and since my residence in Edinburgh, I have noticed that in the estimation of the public, whisky is a genuine panacea; and that medical men too frequently encourage this opinion by an injudicious prescription of the national stimulant.
The inspection of the body revealed a small amount of blood beneath the arachnoid membrane; and at the posterior part of the left cerebral hemisphere two limited extravasations of blood. The gray matter of the brain corresponding to these effusions was softened, and by histological examination this was demonstrated to have been the only part that had undergone softening, for in the white conducting portion of the brain there were no granule cells found. The absence of any marked paralysis on the right side is explained by the limited nature of the extravasation, and by the complete integrity of the corpus striatum and optic thalami.

Calcareous degeneration of the thoracic and abdominal aorta had taken place; and a small aneurism had ruptured into the pericardium at the line of reflection of the visceral pericardium over the great systemic blood vessels; the reason for the aneurism forming at this spot is explained by the fact that the tissues of the aorta were more seriously involved in calcareous degeneration at its commencement than at any other part, and the momentum of the column of blood both during the systole and diastole is sustained at this special point in the aorta; so accordingly we found that the sac of the
anurium had burst at this locality into the pericardium, that twenty-two ounces of mixed fluid and congealed blood were bled out, explaining his suddenly-swore collapse, his familiar irresistible form of distress, and his consequent speedy dissolution from ineradicable syncope.

Beyond slight congestion of the kidneys, there was no physical pathological condition to account for this man's albuminuria; Sam therefore led to suppose that this symptom was the result of a concurrent overstimulation, induced by alcoholic stimuli.
Syphilitic Tumor within the Encephalon.


Antecedents. The patient states that he had primary syphilis in 1855. He has been very intemperate in his habits, and had drunk rum very freely for three weeks previous to illness.

On Thursday (May 10th) he was working hard and was very hot, when on stooping he felt intense pain across his forehead, and fancied that he had received a blow from behind on the nape of his neck; he immediately raised his head, and felt a cutting pain in the occipital region. An hour after vomiting commenced, food was rejected immediately mixed with red blood. On May 17th (8 days before admission) he noticed a discharge of blood and pus from the left ear, which lasted on him for four hours; he neither complained of rigor nor pain, but since the discharge of blood he has been subject to singing noises in the left
ear. Since this seizure he has always suffered intense constant pain across his forehead.

On admission, May 25th 1860. He was dull, stupid, drowsy, and rather emaciated; purulent discharge from conjunctiva, vision indistinct from opthalmae, pupils contracted; Pain across brow of a constant nature; great intolerance of light and sound; frequent noises in his left ear.

Cardiac sounds healthy. Pulse 78. Small, labored, and regular. Coffin's scar on his legs, arms. His gums are extensively ulcerated (probably from mercury); tongue coated with a mucoid secretion; vomiting instantaneous on taking any food; abdomen sunken to an extreme degree, quasi excavated; frequent hicouh; Bowels open regularly. Appetite very indifferent.


As was treated with Empl. Cupreum, Bich. flour, Colchicum. Hac nocte.

Hair to be cut short. Milk diet. Soda Water.

Pij. Mixture Effluvium. Ammon. 3r.


puro hausti quarta quaere hora.

May 26th. He is very stupid, and does not pay
any attention to objects, nor will he answer questions. Extremities cold. Apathetic, glassy eyes.

May 29. His stupor continues the same. He passes restlessly restless nights, and is very drowsy. Pulse 52, weak and laboring.


Potassii Iodidi, gr. 30. quarta quaëra hora. Beef tea and egg insomata.

Vap. Hydrarg. 31. infirnmantium in axillae.

Emplash. Lyftae. Post aurum sinistram.

June 4th. This treatment was rigidly enforced; on the reporter going to his bedside this morning, he was quite conscious, and stated that his pain suddenly ceased about 7 o'clock in the morning; he partook of food without vomiting; slept soundly during the day; his pupils were natural; no photophobia. Pulse 80, not at all laboring.

June 25th. He continued the Iodide of Potassium mixture, with good nutritious diet; and today he was dismissed, strong and in all respects quite well.
Commentary. I have introduced this case as an example of syphilitic tumour within the encephalon; for the case illustrates well the severity of the symptoms when proper medical measures are not employed.

This man on admission was兼uncted, drowsy, and apathetic; his pupils contracted, purulent discharge from his left ear; counting his pulse small and laborious, abdomen sacculated. He paralysed, but interior cephalalgia.

He was treated for a whole week; during which time counter-irritation, stimulating mezura, and mild stimulating refrigerants were administered without the slightest benefit; in fact, he gradually got worse; the counting and cephalalgia became most urgent, his nights very restless, his stupor and apathy increased, and he was fairly becoming comatose. Dr. Habershon on noticing the specific scars on his legs determined to give the Jodide of Potassium a fair trial. He ordered accordingly—

\[ \text{P} \text{i. Potassii Jodidi gr.} \]
\[ \text{M} \text{. Mixture Ammonice Effervescente gr.} 4 \]
\[ \text{F} \text{i. Hydrarg. Fr. infra cord. in axillis.} \]

This treatment was carefully followed out for
Three days: when on any going to the patient's bedside, he was found quite free from his intense pain; quite conscious, being in a high state of enthusiasm at the good effects of the remedy. Under the combined influence of Iodide of Potassium and generous diet he rapidly convalesced, and in three weeks from the date of ordering the Iodide, he left the Hospital, in all respects quite cured.

I may remark that specific ulcerations, scabs, and nodules, or any other circular corporal marks of previous general campaigns throw an important light on the correct appreciation and treatment of these cases. The Iodide of Potassium acts as a charm; its beneficial influences are generally noticed in about 2 days from the time of its use; and the first symptom of established convalescence is the disappearance of the apathy. When a good generous diet is superadded, apparently wonderful and rapid recoveries frequently result.
Cancer of dura mater, cerebral hemispheres, vertebra, anterior mediastinum, + phalanx.

Obstruction of the superior vena cava by constriction, subsequent to scirrhouous deposition.


Antecedent history.

His parents died of fever. No history of syphilis. Three years before admission he used to gamble and live very intemperately. In following this trade he has necessarily been exposed to the inhalation of the irritating fine dust and sand; to the influence of arsenic and lead, the effects of the latter poison have been demonstrated by colic and the blue line on the gum. He has received many blows and falls on his head, but none recently. For the last two years he has complained of cough, and frothy expectoration; and within the whole of last year (1859) has noticed streaks of red blood mixed with the sputum. Within the last six months he has noticed a gradual failure of power in the muscles of the left side of the face, clubbing of the fingers, and a solid
* Sputum scanty, of a dark mucoid character and streaked with blood. Foul breath.
growth over the first true phalangeal joint of the left middle finger.

On admission, October 26th, 1859.

**Circulatory System.** Heart's contraction is sharp and forcible. Traces of dulness 2 1/2 inches.


**Respiratory System.** Marked dulness over the upper third of the right lung and 3 1/2 foot.

Respiratory sounds are soft, where deficient in intensity, and stibilation heard on both sides anteriorly. The auscultatory signs are much obscured by general muscular tremor.

**Digestive System.** faintly marked blue line on the upper gum, at line of junction with the teeth. Tongue furred white and flabby. Frequent vomiting; constive bowels; constant feeling of nausea; indifferent appetite.

**Hepatic organ natural.** Abdomen supple.

**Integumentary System.** A well formed, middle dignified man, somewhat emaciated. On his left temple is an old cicatrix, and a prominent node, which is excessively tender. The fingers of both hands are quite deformed by clubbing and the toes participate in this striking trait. A solid tumor occupies the position of the first true phalangeal joint of the left middle finger.
His expression is fierce and vacant, his eyes are both directed towards the right side; his brow is knitted, and he has an anxious and painful cast of countenance. Thin, hot and dry.


Nervous System. His head is large and hot. He complains of vertigo and ringing noises in his head; he has never had any fits, but constant cephalalgia. Tinnitus of the left ear only. Strabismus (caused by paralysis of external rectus) on the left side; diplopia + failing vision. Pupils equally dilated and obedient to the stimulus of light. Right facial paralysis on the left side; corrugation and closure of the eyelid imperfect, &c., and the angle of the mouth is drawn to the right side. He can move his extremities perfectly well, and there is no impairment of sensibility. The tongue is prolonged towards the left side. He frequently starts in his sleep, and dreams confusedly about his home and trade. On question he complains ofсосердечной pain in both lumbar regions; percussion over these areas is not attended with pain. There is no trace of any

29th. He was very little better. complained of shooting intermittent pains through his head. Pulse 84. Feable. At 3 clock P.M. he was undyly erged with loss of consciousness, slight twitchings of the facial muscle, especially on the left side. Sierous respiration, and some foaming at the mouth, with occasional bloody atakes; no jactitation or rigidity of limbs; he continued in this condition for about seven minutes; during this period Dr. Stocker and the clerk had arrived at his bedside; he was ordered Emma Colycynthides. Static. Acustulae cruciata. Bncks. ad 3vi. This treatment relieved him. On his return to consciousness the left side of his face was found to be gno paralysis from before, and his sight dimmer; he complained of a buzzing noise across the forehead and a buzz
of exhaustion.

November 15th, 1859. Today his whole expression was
pinched, and he complained bitterly of the pain
in his head; the paralysia of the left side of the
face was more marked. Pulse 104. Febrile. Eyes
were sunken and watery; left prolabium is
thick and floated; the left side of the face was
universally edematous; the neck was swollen and
glandulae connectivae enlarged; jugular veins
and superficial vessels turgid with blood.
Bowels confined. Rj. Pil Col 2 Cal. grx. hæ
recte. 

Anoecissa dexam temporibus.

Tinct. Potassii Solidi. pro dito
— 6½. His cephalalgia was relieved by the
couch; but the continual dose not appear to have
any effect on his finger. His frontal veins are
much congested. 
Rj. Pulv. Datura. grx. statum. 60

12½. The superficial veins over the right and left
pectoral regions are much distended; the fore-
arm, sternal parts are edematous and readily pit
on pressure; neck & face edematous on both
dises; cervical glands enlarged and tender. The
external jugular vein is especially distended
feeling like a knotted cord; left vein is not any
much more distended than natural. Urine not
at all albuminious. Vomiting and gastosplenia
Nov. 14th 1859. The right apex was found dull before and behind for about a third of its upper part. Breathing and vibration during inspiration, prolonged expiration, and increased vocal resonance; the heart's sounds are unnaturally transmitted upward towards the right apex. He complains of pain in the left infra-clavicular region; tubular inspiration, with prolonged diaphragmatic expiration; the air enters the left lung much more forcibly than the right; there is no auscultation bruith to be heard; the nurse has noticed that he snores loudly when asleep. He complains of depressed spirits and extreme exhaustion. Numbness complained of on the left side of his face; also constant muscular rigidity, for frequently when he raises his left leg in bed, he has to straighten it again by means of his hand. The respiration has become very rapid, is of a starchy red color, but not amalgamated as in pneumonia. Paralysis and other symptoms as before. Dr. Ammonia Hydrochloric. 3/4. for in die. 18. Dancing pain and adema of left arm. 25. He improved very decidedly after taking the Hydrochlorate of Ammonia. The adema had diminished; inspiration more free; respiration not so bloody. Oppression and pain in his head.
not so urgent. He has mentioned to me today that he has noticed a throbbing in his right ear, with a slight discharge, and increasing deafness. He is tolerably cheerful. The edema of the left arm has increased, and consequently sensation is not so perfect as on the right extremity. Lumbar pain increasing.


December 5½. He complains now of an unpleasant bracing throughout his chest, head, and system generally; on auscultation the right lung was found to present the same physical signs as on Nov. 14½; the tubular breathing is heard at the left apex, and hoarseness and respiration is not so freely performed as usual. No natural; some increased resonance at this apex. Edema of the face and left arm the same. Abdominal veins congested; and inguinal glands hard and enlarged. Bowels now regular.

Sherry, wine 3½.

- 9½. Considerable photophobia.
- 13½. Pulse small, 96 per minute. He complained of a tickling pain in his throat, and unpleasant whirring, inspiratory at night especially. The respiratory murmur is almost deficient on the right side; occasional vibration is
heard at the base posterosly, and marked increase of vocal resonance. Heart's sounds are strongly transmitted up towards right apex. Left lung expands well, but vocal resonance is much increased at the apex. Pneumonia might noisy to his cough. Pp. Pil Doust, gr. omni malle.

Intense pain in his loin, which is now much increased on pressure, but no deformity exists.

Emplast Roborans. Lumbs applied.

20 Ser. Homoeopsis (about 3/4) of dark blood. General heaviness and depression; increased paralysis on the left side. Lumbar pain and adema much the same.

1850, Feb 25. His emaciation had steadily advanced. His speech became thick; sense of sight and hearing completely abrogated; impaired memory and transient delirium. At 4 Clock p.m. the sphincters relaxed, and bladder was completely paralyzed; (urine was drawn off by catheter, ammoniacal but not albuminose), his lower jaw relaxed, numerous rattle in larynx succeeded to this, and he died quietly at 5 p.m. giving utterance to stifled groans before dissolution.

Post Mortem. 20 hours after death. Body much emaciated, anaemic; left arm and face tetanus adynamous. Fingers and toes clubbed.
Head.

On the left frontal suoneurse was an unyielding tumor, of about the size of a walnut and of soft cancerous growth, which was closely connected with the dura mater beneath, and protruding outwards had caused infiltration, absorption and perforation of the os frontis. The central ventricles were both distended, each holding about 3 fl oz of serum; In the posterior lobe of each hemisphere was a soft gelatinous cancerous growth, about the size of a chestnut; Each tumor on section showed at its circumference a translucent matter, which was highly vascular; but the center consisted of soft, yellow dead cancerous matter. On the floor of the fourth ventricle, projecting into its cavity & encroaching most on the left side, and in particular pressing on the corpora quadrigemina of the right side was a cancerous tumor resembling three of the posterior lobes, and in size corresponding to a chestnut; it was rough and irregular externally, and was attached by a broad pedicle at its anterior aspect. The sixth nerve was found much atrophied on the left side, being only one-fourth the size of its opposite fellow nerve. Tonsilar and medulla oblongata healthy. Cerebellum on section mildly vascular.
The bodies of the fourth and fifth lumbar vertebrae were found diseased, and on section soft and infiltrated with cancer. Spinal cord not examined.

_Thorax._ On removing the sternum, a large cancerous glandular mass, hard and fibrous was seen in the anterior mediastinum surrounding the large blood vessels, and bifurcation of the bronchial tubes, descending into the chest on the right side. The tumor was as large as a boy's fist and was very irregular. The arterial trunk was not obstructed; but the right and left innominate veins, superior vena cava, and left jugular vein rendered almost imperceptible by pressure. Above the axis of obstruction esculenta were found in the veins, especially in the deep jugular. The left subclavian vein was completely blocked up.

The cancerous disease extended downwards in the form of a number of nodules on to the heart itself, cancerous deposit followed the course of the coronary arteries. Lungs. The upper lobes of the right lung was entirely adherent to the wall of the chest, and to the cancerous mass in the mediastinum. This lobe was in a state of chronic pneumonia; black on the surface and in substance; and deeply infiltrated with cancer.
This was quite unexpected; there was no bronzing of the skin during life.
The lower lobe of the right lung contained a black deposit on its surface. The middle lobe was tolerably healthy. The left lung was not adherent, but comparatively healthy. The valves of the heart were healthy.

Abdomen. Inguinal glands were enlarged and contained cancerous deposits. Liver and kidneys were healthy. The spleen contained a small cancerous mass, firm and hard, and with the microscope showed well-marked cancer cells. Both suprarenal capsules were enlarged, and infiltrated with cancer; the abnormal deposit separating its tissue into two layers.

The tumor on finger of left hand proved to be due to cancer; the enlarged joint was structurally obliterated, and on section yielded a milky cancerous juice.

Commentary. This case presents many points of great interest. He had been exposed to the poisonous influence of lead, arsenic, and fume dust in the course of his trade, as a glass-grinder. On his admission, he was suffering from cough and occasional hemoptysis (October 1859). He was complaining also of cephalalgia and various
nervous symptoms; such as facial paralysis on the left side, strabismus, diplopia, tinnitus aurium, deafness, thickening of speech, &c., specified under the Nervous System; there was a lump on his left temple, and on his left hand finger. The superficial veins of the body, and subsequently those of the face and left arm were much engorged, and edema occurred. On the 29th of October he had an epileptic fit, which left him more paralyzed in his face, and his sight was also much dimmer than before. In November the inspiration became obscure, especially on the right side, and the veins over the thorax, chest, and left arm became more adenopathic, so that organic mischief was suspected in the chest, in addition to his encephalitic disease. Towards the end of November he improved under the influence of the Hydrochlorate of Ammonium, but vomiting soon returned, great restlessness, lumbar pain. He subsequently gradually emaciated, his course of sight and hearing were entirely lost, memory much impaired, transient delirium. He lay listlessly for some days, and died quietly on February 25th, 1860.

It will be unnecessary to recapitulate all the post-mortem appearances observed, for I
have already carefully reported the gross external appearances: but we may trace out in an explanatory manner some of the chief phenomena observed. The prominent tumours of the phalanx and os frontis were composed of soft cancer. A mass of hard fibrous cancer occupied the whole of the mediastinum, complicating and causing almost complete obliteration of the osa cava superior, praecociecephalice oris, right and both jugular veins; the left subclavian vein was completely blocked up; the arteries were not seriously involved; hence the congestion of the superficial veins, the superficial distension of the left arm, with edema, the bloated condition, and general effusion. The respiratory obscurity was explained partly by the mechanical pressure of the thoracic tumours, but also by its intrinsic infiltration with cancer, and consequent occurrence of chronic pneumonia. The left lung, as might have been inferred from the physical signs, was comparatively healthy. With regard to the brain, this case will seem to fulfil the recognised Clinical Law, that no symptom occurs without a physical cause. Whether or not appreciable by our senses, for I apprehend that strictly speaking no such
Compare also Ann Grigó case. (No. 9.)
lesions as functional exist; the word "functional" masks our present ignorance, and is so far convenient; as pathology advances, so will these names become obsolete. The tumors at the posterior part of each hemisphere, and the distension of the lateral ventricles with fluid explain this man's general cerebralgia, incipient of the memory, depressed spirits &c. The loss of vision is referable to the tumor in the floor of the fourth ventricle, pressing on the corpora quadrigemina and spinoculata; possibly the undue vasculariy of the cerebellum might have had some influence; *The atrophy of the left sixth nerve accounts for the paralysis of the left external rectus muscle; the special involvement of the right corpus quadrigeminiun points pathologically to the origin of the 7th nerve (petitord); and Kolliker possesses a slide demonstrating the anatomical fact: Since the paralysis of the left cheek: again, the tumor in the floor of the 4th ventricle explains the deafness by implicating the lines transversae; to also the direct connection between the auditory nerve and the cerebellum suggests that the former might have been influenced by the
congestion observed in the latter. To also the nucleus of origin of the hypoglossal at the floor of the medulla oblongata might have been sufficiently comprised to account for his thick in speech. I was much disappointed that his urine had not been tested more than once for sugar; there was none present on that occasion; so that this case fails to throw any light pathologically on Bernard's most interesting experiments; but no doubt his gastroduodenal and pulmonary symptoms were influenced through the pressure exercised upon the roots of the pneumogastric nerves, and in proof of this view not being simply theoretical, I have had the advantage of watching a case of pneumonitis and gangrene of the right lung induced in the human subject by destruction of the corresponding par vagum in the cervical region.

Although the supraorbital capsules were both enlarged and infiltrated with cancer, yet there was no bronzing of the skin noticed, nor was the disease suspected during life. Cancer of the lumbar vertebra explained the excessive lumbar pain.

With regard to treatment; considerable temporary
benefit was derived from the employment of absorbant remedies; for although the malignant deposit is not influenced by absorbants, yet the accompanying inflammatory reactions may be removed. Marked improvement certainly followed the administration of the Iodide of Potassium and the Hydrochlorate of Ammonia; and in all probability his days were lengthened by the exhibition of these therapeutic agents.
Cancerous tumor of basilar process and body of sphenoid bone. Impaired function of fifth nerve on the left side. Destructive ulceration and disorganization of left orbit.

Mary Stevenson, aged 32. Wife of a chemist, admitted January 21st 1861, into the Royal Infirmary, Ward XI.

under the case of the Clinical Professor Dr. Bennett, and Dr. Laycock.

The following notes of this case were kindly given me by Professor Bennett.

Antecedent History. In July 1860 she received a blow immediately below the inner canthus of the left eye, directly over the course of the infra-orbital nerve. The injury was followed by a discharge from the left nostril, which has continued up to the present time. Three months ago (October 1860) she first experienced pain in the gums of the left side, which was attributed to a decayed tooth, & supposed by her to have been excited by exposure to cold, whilst carrying water from a distance to her home. The 1st molar of the upper jaw was extracted without causing any relief; and a month afterwards other teeth were extracted, (one of which was decayed) without any benefit.
At this time she experienced pricking sensations below the left eye, with a feeling as of cold water running over the same place; gnawing pains soon succeeded to this; the sensibility at this part was diminished, and ringing noises in the left ear with partial deafness next appeared; Blisters and stimulating applications to the part only produced temporary relief. About New Year's day 1861, the pupil of the left eye became contracted, and the vision dim (with converging strabismus,?) the left cheek also became swollen. Extract of Belladonna was applied around the eyes, which caused the pupil to dilate; and she took three powders daily for five days, which produced salivation. She was now ordered to wean her child, which was a year and a quarter old. Experiencing no relief she entered the Infirmary. Her diet has always been good, and her general health excellent. Symptoms on admission. She complains of a pricking sensation, often amounting to great pain, even agony in the left cheek, darting along the course of the infra-orbital nerve. Constant pain is felt below the inner canthus, and paroxysmal darting pain over the cheek, down to the chin and back to the ear. The sensibility of the skin is diminished over a space extending from the
musal line of the face to the ear laterally, extending upward so as to include the inferior eyelid, and below to the margin of the lower jaw. There is partial ptosis of the left upper eyelid, but the lids can be closed perfectly. The pupil of the left eye is much smaller than the right and readily contracts on the application of light. The left ala nasi remains patent on snifing. There is a slight swelling over the left malar bone. The masseter and temporal muscles act normally. The tongue is clean and when protruded appears to diverge slightly to the right. This is in consequence of the angle of the mouth being slightly dragged to the right side when in action. No sensibility to touch on the left side of the tongue; taste perfect on both sides. The eating masticate her food on the left side of the mouth, but is obliged to support her cheeks with her hand, or the food collects between the cheeks and dental arches. The food + saliva occasionally escape from the left corner of the mouth. On endeavouring to sip, the saliva falls on her clothes, from want of power to project it. In drinking she feels the cup more distinctly with the right half of the lips; and the water feels colder on the left side.
* Solution. Morphine Bicarbonate. gr x. 3j.
    Aqua.
    Mt. Half Solution.
The speech is occasionally thick. No lacrimation.
Appetite good. Bowels regular. Other functions normal. No loss of smell.

Progress of the case. The agonizing pain continued; the pupil of the left eye diminished in size, and became immovable. Blister + Laudanum combinations did not give any relief.

Sundy 27th 1861. Twenty drops of the Binecamate of Morphia were injected into the cellular tissue of the cheek, below the left eyelid.

Sundy 28th. The injection caused considerable stupor which continued for two hours. The local pain has been diminished, she has only experienced darting twinges twice since the operation.

Sundy 30th. Yesterday the pain returned as violently as ever. Repeate injection of Morphia.

Rg. Venus Sulph. go v. bi formia pilulce.

Febry 12th. Injections repeated eight times, causing only temporary relief. Duck Acute mixed with an equal part of Glycerine, the endermic absorption of Oximate of Morphia from a blistered surface over the chest, lips, and Galvanism were employed with only a
temporary benefit locally. Internally, two
dye draughts of Morphia & Chloric Ether at
night, Iodide of Potassium, Strychnine, and
Corrosive Sublimate were successively used
without benefit. The passed sleepless nights,
the discharge from the left nostril increased,
and between the paroxysms of pain, a constant
dull acheing was complained of. She was dis-
missed at her own request on March 23rd 1861,
in no way relieved.
She was readmitted April 3rd 1861. In the inter-
val her symptoms had undergone but little
change. The pupil was dilated with Belladon-
na, and the eye was examined by Mr.
Walker, the oculist, who found the structures
normal. She was then ordered,
parvum 5 or 6 in die.

23st. The dose of Opium had been in-
creased to five grains every night.
May 1st. 1861. The Opium was discontinued,
as was also the Bichloride of Mercury.
Sulphur was given in pills, followed by
Bellewina in the form of mixture. 
Mr. Edwards of the Edinburgh College of Surgeons divided the infra-orbital nerve (left) subcutaneously at its point of exit during this summer 1861; the pain was somewhat relieved for a few days only.
Hening's Tincture of Aconite was also again locally applied.
On May 27th 1861 she was dismissed in no way better.
For this early history I am indebted to the kindness of my Clinical teacher, Dr. Bennett.

The following history is taken from my own notes.
She was readmitted December 19th 1861. During the interval her ptosis became permanent, complete anaesthesia of the left eye; failing vision of the right; increasing driftage of the left ear, loss of sensibility and motion on the left side of the face, and consequent dragging of the features on the right. Constant bloody discharge from the left nostril. Her temper has become changed, fastful, childish and irritable. In August last the left eye became sore and inflamed, the pain became much aggravated, the conjunctiva very vascular; the cornea hazy and opaque, ulceration at its lower umbilicus, protrusion of the whole globe; rendering the ptosis incomplete, and consequently exposing the eye to the constant stimulus of dust and light. Palpebral conjunctivae are prominently pouting and unduly vascular. Tongue protruded to right side.
On readmission. Features are deformed, distorted, and indicate anxiety and distress. Great tendency to weep on speaking to her kindly. Right sensibility of the left cheek, but the introduction of any stimulus into the left nostril does not cause strumulation. Motion of the left eye is almost abrogated; pupil dilated. Throbbing, singing, and buzzing noises in the left ear, + marked deafness. No power of smell in the left nostril. Articulation is imperfect. Emanation of the whole body progressive. Motor power of left facial muscles entirely lost, + general edema on the same side, not however passing below the neck. Thurna drawn to the right side, and left orbital palatine paralyzed. Occasionally violent stabs of pain pass out at the infra-orbital foramen, causing sleeplessness and continued groanings. Vomiting is frequently noticed + incoherency in her remarks. Other phenomena are as before reported. Urine not albuminous. Phosphates and chlorides are abundant. St. Cr. 1017.

She was treated with Chloroform, exhibited in the form of vapor, frequently to allay her pain, and stop her groanings. Chlorodyne drught at night. Pelv. Codice grt. ter indie.
This discharge presents exactly the internal physical appearance of the "Meconium."
Jan 24. Mr. Walker re-examined the eye, and thought that exudation of the globe was unjustifiable, and that some orbital tumor caused its protrusion.

Feb'y 1st. She takes four pills of Opium daily (each holding a grain of Opium) and Chlorodyne Tp. tumb morte. Pupil (right) contracted.

Fleming's Tincture of Aconite - locally.

Feb'y 10th. Vomiting and urgent diarrhea. She has become quite childish, and refuses to take her nourishment. To be upon bed and take Wine quantum sufficit. Chloroform administered pro re nata.

Feb'y 22nd. The discharge passes backwards through posterior nave into pharynx, causing fetid breath and vomiting. Pulse 170, small, irregular and undulating.

Feb'y 25th. Calls loudly for Opium. Her sufferings are agonizing. Urine scanty. Refuses all food. Butter Milk 5 p. to have whatever she fancies in the way of food.

Feb'y 26th. Evacuations passed involuntarily. Moaning respiration, collapse, pulse fluttering.

Feb'y 27th. She expired at 6 p.m. during the visit, quite sensible till an hour before death.
Sectio Cadaveris. 12 hours after death.

Thorax. Heart and pericardium were quite healthy. On removing the lungs and cutting open the bronchi, the lining membrane was red and injected, and the smaller tubules held a glairy gelatinous mucous covering the side of the tubes. At the bases of both lungs were felt some irregular nodules, which on section was found to depend upon numerous little patches of catarrhal pneumonia. These patches were of a pale yellowish pink colour, slightly granulated, breaking down under the fingers pressure; and on compression, a fluid coming from between them mixed with bubbles of air readily escaped. On examining this fluid by means of the microscope, it was found to consist of epithelial cells and nuclei, mixed with globules resembling pus cells.

Abdomen. Kidneys and other viscera were quite healthy.

Head. On removing the skull cap and membranes nothing abnormal was noticed on the cerebral surface. The brain and part of the left side of face and skull were then carefully removed by Mr. Turner, Demonstrator of Anatomy, who macerated
the parts in weak spirit, and after minute
dissection kindly gave the following notes
to Professor R. Bennett.

"A medullary cancerous tumour, from its
naked eye and microscopic characters, appea-
rently commencing in the soft spongy tissue
of the body and basilar process of the spheno-
oid bone had extended especially to the left me-
tal, left orbit, and left half of the cranial
cavity. The spongy tissue of the sphenoid +
of the basilar process both of the sphenoid +
occipital bones was completely infiltrated with
the cancerous material; the hard compact tissue
of these bones was also softened, so that a
knife could easily penetrate it. Sphenoidal +
posterior ethmoidal sinuses were filled with
cancerous material. The tumour had occasioned
destruction of the left side of the body of the
sphenoid bone, and had projected into the
middle and posterior cerebral fossa. It had
contracted adhesion to the dura matter, and had
also occasioned adhesion of the apex of the mid-
dle lobe of the cerebrum to the floor of the middle
cranial fossa. In its growth it had necessarily
involved the 3rd, 4th, 5th and 6th cranial
nerves in their course along the sides of the
"cavernous sinus. They were all surrounded by the "cancerous material", softened in texture and evi- "dently infiltrated to a greater or less extent "with its particles. The fifth nerve was especially "involved in the diseased mass, so that it was "impossible to dissect out its fibers. This applied "to the nerve before it formed the Gasserian "ganglion, to the ganglion itself, and to the large "branches proceeding from it. The internal carotid "artery from its relation to the inner wall of "the cavernous sinus was also closely surround -"ed by the tumor, but its canal was porous. The "sympathetic nerves which lie in contact with "the arterial coat, and which thence from the "cavernous plexuses, were necessarily included along "with the artery. The part of the tumor which "projected into the posterior cranial fossa was of "the size of a hazel-nut. It had grown along the "posterior surface of the petrous part of the temporal "bone, and surrounded the seventh pair of nerves as "they entered the internal auditory meatus; a "process of the tumor had also grown into this "meatus. The only surface of the petrous bone "was blackened and otherwise discolored. In place "the bone was so soft that the knife could "easily penetrate it. The growth of the tumor towards
"into the orbit had necessarily involved all the structures situated at its post. part, which were thus impacted together, viz. the 2nd, 3rd, 4th, 5th, 6th, the lacrimal, frontal, and nasal branches of the 5th. So far as the dissection has yet been extended, the tumor is apparently confined to the back of the orbit. The post. part of the orbital plate was thinned, softened, and partly destroyed. The tumor projected also into the left nostril, and had pushed the septum to the right side. The bones forming the septum were in great part softened and destroyed. The mucous covering on the right side of the nasal septum was intact, although it was losing its proper character. A quantity of dark gum, almost black mucus was being discharged from the left nostril into the pharynx. The 8th and 9th cranial nerves were unaffected. Although the growth of the tumor was mainly to the left side, yet there were most decided indications of commencing affection of some of the nerves on the right side. The ophthalmic branch of the 5th, with its ophthalmic sup. and maxillary branches were distinctly involved. The infraorbital maxillary branch very slightly. The 11th and the 2nd and 3rd nerves could be dissected without exhibiting any adhesion to the tumor. The internal carotid (right)"
The optic nerve being implicated, its retinal expansion was functionless; although this could not be determined during life from the dense opacity of the cornea.
Commentary. I have introduced this case to show the great advantage of studying peripheral symptoms in cases of syphilitic tumor; the poor woman had been under observation since January 1861, and careful records of her case had been kept. It will be unnecessary again to mention these, as they have all been entered in the report most carefully. A carcinous tumor had grown from the bacular pierces and body of the Sphenoid bone, and had implicated the 1 1/2, 3, 4 1/2, 5, 6 1/2, and 7 th nerves. Now the involvement of the olfactory roots accounts for the loss of smell in the left nostril. The ptosis, dilated and immovable iris, the impaired mobility of the eyeball was due to the implication of the third; so also to the connection the fourth and sixth nerves had with the tumor. The altered nutrition of the eyeball, mucous membrane of nose and mouth, hyperesthesia and pain was due to the especial implication of the fifth nerve, and very probably in part to that of the sympathetic filaments.

That these distributions may be readily understood, I have drawn out a sketch of
the roots and peripheral distribution of the fifth nerve.
The third division of the fifth was sufficiently involved to produce paralysis of the internal and external sterno-oids, maseter and temporal muscles, but the spoon-dish on which she was lately fed did not necessitate her masticating, and therefore it was not complained of.

It is unfortunate that the sympathetic nerve was involved as well as the fifth, or considerable light might have been thrown by pathological evidence on the broad question as to which of these nerves regulates the healthy nutrition of the eyeball & contents. The poster dura & mollus being affected on the left side explains the facial paralysis, the sighing noises in the ear and deafness.
The par vagum and hypoglossal nerves were uncomplicated.

The paralysis of the soft palate was due partly to the affection of the stee ganglion through the third division of the fifth which supplies the tensor palate muscle; and partly through the complication of the facial nerve, the superior petrosal or Vidian nerve was unable to
contribute the motor filaments to the spheno-palatine ganglion, which supplies motor branches to the arygos muscles and levator palatine muscles, and this is certainly pathological evidence against the branches of the 8th pair supplying the soft palate through their pharyngeal branches, for in this instance it was satisfactorily proved that the 8th vagus was uninvolved.

The fifth and sixth nerves were evidently becoming implicated by the growth of the tumor on the right side.

A variety of remedies were tried in this case; for my own part I am sure that much good was done by the inhalation of chloroform, relieving her pain and preventing her annoying her fellow patients, and various preparations of Opium procured her sleep, but materially de-ranged the proper functions of the alimentary canal.
Cartilaginous tumor of the dura mater.
Softening of the left lobe of the cerebellum.

Ann Gren. at 49. Married.
Living at Leith. Admitted November 4th, 1881.
Under the care of Professor Laycock.

Antecedent History.
The patient had been quite well until two years ago, when she began to complain of cephalalgia mostly over the occipital region, but extending forwards to the vertex. This pain was described as being of a dull obscure nature, occurring about three or four times a day, and continuing for several hours, when corresponding sensations ensued. These inos.
ested sensations did not at first materially interfere with her powers of intelligence or locomotion, but have subsequently impaired both functions so gradually and insidiously as not to cause apprehension. The cephalalgia pain has of late been less frequent but more severe, the complaints of no other unequal.

Head symptoms, nor can she account for her primary accession. The date of monocular
creation coincides with the first symptomatic occurrence of lesion. Her youngest child is at present ten years old; process of parturition always naturally performed.

On admission.

Circulatory System. Cardiac dullness and sounds natural. Pulse 50, very feeble but regular. The blood examined microscopically showed the red corpuscles flabby, irregular in shape, cohering by their margins instead of forming rouleaux. White corpuscles were both large and granulated.

Respiratory System. Respiration slow; resonance natural; harsh purrile breathing at the apices of both lungs anteriorly.

Digestive System. Appetite good, tongue lightly furrowed. Abdomen is soft and free from pain. Stools passed involuntarily.

Sphincter organ of natural size on percussion.

Integumentary System. Forearms are collapsed; the few teeth remaining are loose and decayed, skin marked with a brownish yellow taint of pellagra. Expression prematurely old. Pupil of the left eye comparatively dilated. The cheeks are suffused with a marked capillary blush, significant of a diasthetic tendency to disease.
The catheter was employed once during life, and on the post-mortem table; but no urine was obtained on either occasion; hence the chemistry of this operation is unavoidably omitted.
of the arterial tines; we short her whole phy.
signomym illustrates well the acute arterial
diathesis.

Genito-Urinary System. Urine passed involun-
tarily, consequently no opportunity for testing
it; menstruation has ceased. No Enuresis.

Nervous System. The cephalic pain commen-
suring at the occiput extends forwards apparently
in the direction of the vertebral and posterior cer-
bral arteries; the attacks are paroxysmal, usually
last for about an hour, and occur frequently
during the twenty-four hours. The screams are
loudly during sleep, as to compromise the quiet
of the clinical ward. Percussion over the vertebral
is unattended with inconvenience, and the back
of the body is also free from pain. Top of motor
power in the lower extremities, but perfect sen-
sibility. The upper extremities are not so mate-
rially affected as to preclude their free and useful
employment. She sleeps soundly, but is sometimes
disturbed by apprehensive dreams, such as
gaging herself and husband in imminent
peril; sometimes her dreams are imaginary;
the less dwarfs, fairies, + mysterious voyagers.
She is conscious that her memory has failed
since the commencement of her illness; her
November 9th 1861. Emma Lyttle, some acridum singularum, milk, beef tea.

10 The blisters applied and dressed in the usual manner did not afford any relief.

11 Lactoses and ammonia; heart's action is very feeble. Chloroform to be locally applied to the nape of the neck, by means of a watch glass.

12 Her head was partially shaved, and the chloroform applied with some benefit. The complaints of intense cephalalgia, imperfect vision, urgent sickness, and anorexia. Her pulses are quite cold, although the looks fluid, and capillaries of face are minutely injected; her pupils are sluggish, but of equal size.

Incipient abscess builds at the superior aspect of both cornea. Pulse 72. Very small, little compressible.

At 8 a.m. the day nurse noticed that the patient's features were very livid, the head physician was summoned, but she died before his arrival; she did not utter any cries, nor was there any convulsion.

Post Mortem. 28½ hours after death. Body was emaciated and enigmatically. Nature
prominent and pallid; circular spots on the arms, simulating petechiae, and ecchymosis around the nape. Mammaple flaccid. No oedema.

Head. Skull cap somewhat drier than natural, on removing the dura mater. The sinus sphenoides were gorged, the culde indistinct, and the brain surface flattened. On dividing the brain longitudinally the roof of both ventricles bulged upward, both were dilated, and each contained about two ounces of a clear corpus, which gave a slightly albuminous reaction. The pools contained in the ventricles were quite healthy. The dura mater was next found firmly adherent to the left lobe of the cerebellum for a space about the size of a shilling, close to the transverse sulcus. On examining how the base of the skull, the occipital bone was found much thickened, and in the left cisternal fossa close to the occipital protuberance the bone was excavated by interstitial absorption. The grooves for the middle meningeal arteries were well marked. The left lobe of the cerebellum was found softened, and a tumour of the size of a small walnut was found connected into the dura mater, growing towards toward the left lobe of the little brain, but implicating its gray matter only. The section
Microscopic Examination.

The tumor consisted essentially of small circular cells, holding one or more nuclei. Many fusiform cells were seen, like those in fibro-nucleated tumors. On adding acetic acid the nuclei became very evident. Much granular and molecular matter.

200 diam.

ad notat delt. A. Parry.

From Cerebellar Tumour.
the whole of the left lobe was found constricted oedematous, the white matter presenting a very distinct but faint yellow color. The tumor did not appear to be structurally connected with the cerebellum, for its component lobules could be separated with great facility, without any laceration of the cerebellar tissue. On section, the tumor was lobulated, of a grayish color; had a smooth homogeneous translucent appearance, and its consistence was firm and elastic-cartilaginous, giving rise to a joint cracking sound when cut into. The dura mater over the right lobe of the cerebellum was thickened, but not adherent to it, this thickening extended over the space of a four finger breadth, and was about 1/10 of an inch in thickness. It possessed an opaque yellowish appearance, and its consistence was firm and resisting. The pons veroli, medulla oblongata, central lobes, and other brain centers were quite healthy in appearance.

The histological appearances of the tumor are exhibited and described on the opposite side.

Thorax. Heart weighed 8½ ounces. There was a smooth atresianatus only on the anterior segment of the mitral valve, and a similar degeneration at the base of the aorta; sigmoid valves thickened.
Right side of the heart was healthy. From adhesions on the right side of the chest from old fibrosis, and serous pusulent matter in bronchi.

Abdomen. The great omentum was found adherent to an ovarian cyst on the right side; of about the size of a walnut; on opening the cyst, some yellow-viscid matter, and convoluted hair were found in it. Liver healthy, but the gall-bladder contained many small calculi of a dark-green color. Capsule of spleen thickened.

Kidneys. On removing their capsules, the cortical portion was found rough, and numerous small cysts, containing a gelatinous material studded the surfaces of each organ. Otherwise healthy.

Commentary. This accurately reported case illustrates a rare but very interesting form of disease; namely, chronic pressure made on the cerebellum by a cartilaginous tumor.

Her symptoms occurred for two years prior to her admission into the Infirmary; pain in the occipital region and astasia was especially complained of; the date of its accession coincided with the cessation of the menstrual discharge. There were well marked intermittent paroxysms of pain; and gradually she entirely lost the
Motor power of her lower extremities, and partially that of the upper, but sensibility continued unimpaired, loss of memory and inertia of ideas, with imaginary dreams accompanied her other symptoms—urgent anorexia and vomiting succeeded towards the close of her illness, and she died nine days after her admission into the Infirmary.

The treatment pursued was counter-irritation, milk diet, Beef Tea, and the local application of Chloroform (Dr. Lettes method) to relieve the cephalalgia.

The local application of Chloroform gave much relief; but for further information on this subject, I would draw attention to a paper read before the Royal Medical Society of Edinburgh by Mr. Duckworth and myself, on some original experiments on the actions of various local anæsthetics.

The post mortem revealed a tumor of the size of a walnut, growing from the dura mater and involving by pressure the gray matter of the left side of the cerebellum. The lateral ventricles were dilated; and the visual and optic tracts degenerating; the former atrophied, the latter altered by chronic thickening. One of the ovaries
had enlarged, and a feliform cyst was found attached to it.

This case again impressed on my mind the importance of examining the medulla oblongata in all cases of "Cerebral Disease"; so as to satisfy the first symptom of many that no spinal lesion was present, in the present case there was no evidence of any spinal affection for no pain was induced by supra-vertebral percussion.

This is yet one point I would draw attention to in this case, viz., the dilatation of the left pupil, and imperfect vision. I am led to believe, so far as my own experience goes, that disease of the cerebellum is frequently associated with partial or complete amnesia; and consequently becomes a correct diagnostic symptom; I am not aware that any anatomical connection has been demonstrated; but very probably it does exist, through the medium of the superior peduncles of the cerebellum (which by the way come from the inferior lobules of the eye), and subsequently enter the corpora quadrigemina and optic thalamus, from which parts the optic nerves take their origin.

There is no doubt entertained by our most
succinctly. Physiologists say that the cerebellum
provides over the coordination of movements,
as corpora olivaria to the spinal cord, so that
the cerebellum executes the completion and ful-
fillment of the order originating in the brain;
but no one can deny how essential the organ
of sight is to these fine performances of bal-
lancing, leaping to—(as exemplified by Blondie),
therefore as the physiological connection between
sight and the function of the cerebellum is
already recognised, I see no objection to ex-
tending this association to pathological in-
quinitis; and the cases of Fisher and Grig-
(No. 7) and(No. 9) corroborate this statement.
On writing to Dr. Wilkes, Lecturer on Pathology
at Guy's Hospital, on this very point, he
stated that the connection between amaurosis
and disease of the cerebellum was now fairly
established, and that he had on more than
one occasion diagnosed disease of the cerebellum
where amaurosis existed, and the fact
inquiries have proved the correctness of it.
Partial obstruction of Basilar Artery.
Softening of Pons Varoli.

George Wilson, at 45. Labor. was admitted at 11.30 a.m. on May 26th 1861, under the care of Professor Bennett. No. X. Ward.
from notes taken by Richard Davy.

Antecedent History. His habits have always been irregular and intemperate. In the beginning of May 1861 he complained of a constant pain in the back part of his head, which continued with impairment of his general health up to May 25th, when while standing he felt himself getting dizzy; his legs gave way beneath him, he staggered and fell down. His cutaneous sensibility was not affected, but his consciousness was materially impaired.
In the evening of the same day he fell down again, was delirious, (of a muttering character), his ideas were incoherent and confused; he fancied a crowd of people were surrounding him, some aerial, others terrestrial; his breathing soon became stridorous and very laborious, his whole muscular system relaxed, sensibility imperfect, and he remained in this comatose condition during the night.
On admission, 12 o'clock, May 26th, 1861.
He was in a comatose state; his breathing was labored and mingled with groans. His countenance was much flushed; but the skin was hot and dry. Respiration 17 per minute; he was quite unconscious, could not be roused, neither would he protrude the tongue nor swallow. His sensibility was decidedly lowered; on irritating the external parts a slight effort was made to withdraw them; his arms were flexed on the trunk; and even somewhat rigid; occasional twitings of the arm and legs were noticed; urine and most obstinate closure of the lower jaw; thumb inverted or spasmodically drawn back. Pupil were contracted, conjunctive almost insensible when touched - Pulse 80, weak.

A catheter was immediately introduced, and some healthy looking urine was drawn off. Sp. Gr. 1015. Contained crystals of uric acid, but no albumen.

Treatment. Urine to be constantly drawn off; hair to be cut short; cold to the scalp; and warm bottles to the feet.

11:00 p.m. His skin became very cold and clammy; his coma more and more profound.

May 27th, 1861. He continued in the same condition until 1:15 a.m. today, when he died in a state of profound coma.

Post Mortem. 11 hours after death.

Head. The dura mater was firmly and universally adherent to the skull-cap. The calvarium was considerably thickened. The surface of the brain was pale, and much fluid was found in the subarachnoid space.

Ventricles contained rather an excess of colorless serum. The cerebrum and cerebellum were quite healthy sectionally and on section. On examining the Pons Varolii, the whole mass felt soft; when sliced into and exposed to a current of dripping water, the left side was not affected; but on the right side the ganglion structures were washed away, giving an irregular appearance to the section. Histologically, the granules and compound granular corpuscles were more numerous on the right than on the left side. The arteries at the base of the brain showed marked atheromatous degeneration. The tunics of the basilar artery were thickened, and of an opaque yellowish-
Basilar Artery: constructed cut open
Clot lying at Cardiac End.
R. Price delt.
so that the calibre of the vessel was dimin-
ished for a space about two lines in length
at a point corresponding to the centre of the
fossa externa, and on splitting open the artery
at the cardiac end of this constriction, a
small semi-adherent non-decolorised clot
was observed.

The heart was structurally healthy, but the
corpus, especially at the arch, was studded
with patches of atheroma.

The pleura were healthy; on removing the
lungs and cutting them, their bases were
found adematous.

Abdominal organs were all quite natural.

Commentary. This case is a very instructive
one, showing how essential to the persistance
of life are the functions of that important
glandion at the base of the brain, the Pons
Varolii. This patient, who had led a confirmed
life of debauchery, suddenly gets dizzy, staggers
and falls to the ground as if paralysed. His
consciousness is seriously impaired, but common
sensibility unaffected. The same evening
he falls again, becomes delirious, his mus-
cular system relaxes, and he gradually
drives into a state of deep coma. On the
The next morning revealed general atheroma of the arterial system, especially well marked at the arch of the aorta, and in the basilar artery. This atherosclerotic deposit had thickened the tunics of the basilar artery over the center of the pons; it doubtless change had been a gradual one; but on sectioning open the artery a small piece adherent non-decolored clot was observed; this in all probability so impeded the circulation through the pons as to account for his sudden paralysis of the lower extremities; granular softening of the pons followed, which induced profound coma, and speedy dissolution.

It is difficult to say how or where this clot originated primarily. There was not any heart (valvular) disease; and I am inclined to believe that the clot originated in the basilar artery itself, where a constriction existed from thickening due to atherosclerotic deposit; from the adhesion established between it and
The basilar artery it is evident that its occurrence in that spot was acute motion, but from its being non-decolorized its existence there had not been chronic, and very possibly its existence had only continued for about 48 hours, which coincides with the time during which symptoms of an acute form had demonstrated themselves.

The diagnosis of arteriomatic degeneration of the cerebral vessels was mainly arrived at by paying attention to the patient's history of persistent occipital cephalalgia, and whenever in advanced age this symptom is brought before our notice, unattended with any marked peripheral lesion, it affords strong presumptive evidence that arterial pathological changes are taking place.
Rheumatic Endocarditis. Embolism of the left carotid and middle cerebral arteries.

Albuminuria.

Jane Page, aged 14, admitted November 3rd 1859.
Under the care of Dr. Addison.
Clinical Ward, Lydia Richard Davis.
Guys Hospital, Clinical Clerk.

Antecedent History.
Her mother states that the patient was always delicate, but never complained seriously until two months before admission; when her joints became painful and swollen; the smaller articulations participating with the larger; she did not complain of dyspnoea nor palpitation, but as work before her entering the Hospital she became much worse; showed well marked feverish symptoms, rapidly enacrated; the continued to lose strength daily, and was evidently extremely ill, when she applied for admission.

Circulatory System. Slight heart, percussion dullness.
Vibration felt between the fourth and fifth, and fifth and sixth ribs, in a line parallel to and from one side of the sternum; a loud systolic blowing murmur was heard a little to
the right of the left nipple, with an intensity of sound increasing towards the apex. Rhythm regular. The cardiac sounds over the aortic valves were prolonged, no distinct bruit was heard. Pulse 78, feeble. 116 per minute.

Respiratory System. Natural.

Digestive System. Tongue covered with a thick creaming fur; saliva adhesive; anorexia and great thirst complained of. Stibatic dulness natural. Abdomen is dull, and its parietes fluid. Resonant on percussion; no tenderness on pressure; diarrhoea frequently is very troublesome.

Integumentary System. A pallid atrophic girl, with large blue eyes, long eyelashes, thick upper lip; features childish and insensible. Muscles small and flabby; general advanced emaciation; minute vascular rose over the zonal ribs anteriorly. Skin is sweating, acid perspiration.


Nervous System. The complaints of continued aching pain in her joints, especially her knees and ankles; the right knee is swollen, hot, intolerant of pressure and sunstroke; the remaining articulations do not possess any physical heat.
House apothecary and Medical Registrar to Guy's Hospital.
The patient moderately well; no cephalalgia, nor pain complained of over the vertebral column. Pupils dilated. Speech almost perfect. A feeling of uneasiness not amounting to pain referred to the forecordial region.

November 3rd 1859. The was ordered by Dr. Addie:

Emulsion Cauteris. (2 x 3) stone.

Ky. Potass. Iodidi. gr. iii.

Trich. Hyoscy. 3x x 3z. Sulph. Arsen. Capiat esthecan. magnum unum fer did.

6½ For bowels had not been open since admission; she was ordered


Natura rum. 30. 

Hustus Tinea e Vino


18½ She is very much better; her right

knee is painful; cardiac sounds as on admis. 

Ing. Hydrag. applicand. gr. drac. 

5x. 

Pf. Pel. Drovin. gr. xii. ext. 

Decocti. Cinchona 3 Toda. 3f. bid. did.

December 4½ At 11 o'clock a.m. Mr. Tucker was summoned by the clerk to visit the girl; she was taciturn, either unwilling or unable to speak, her skin was burning profusely, she was extremely anxious and persweat if touched, contorting her features as if in pain; her memory was so affected that she did not recognize
her friends. Skin hot, pulse small & running. Urgent diarrhoea. Dr. Stacker ordered
5½. Reverie, nausea and pain continue, she
lay quiet in bed, silent and motionless if
not disturbed. Her tongue was covered with a
erythematous, desquamating pharynx and acid to blue
titan. Urine. No. Gr. 1010. High colored; when
tested by means of heat and Nitric Acid, a cloudy
white precipitate falls. When the urine was
carefully filtered and tested with colorless Nitric
acid, a well marked albuminous precipitate
resulted. — 9 p.m. worse. Features deadly
pale, cold and motionless. Profuse sweating.
The answers questions very shortly, and begin
to cry when examined. Opium gr. 1/2 hæ nocte.
6½. There was some reddish noticed over her
right hip, which was immediately covered
with felt plaster. The urine much better
and takes cognizance of objects around her, but
is in great if moved or interfered with; her
feet are always insisted; no cephalalgia nor
pain on percussion made over the vertebras;
sensibility perfect. No involuntary evacuation
of urine or faeces. Emp. 1 linth. made applic.
Dec. 7. The blister rose well, and she is decidedly improved. Ofm gr. 1, ac. note.
8 A. She will not bear any manipulation. Her pulse today is strong 102 per minute. Expression today is quite cheerful. In the morning some slight facial paralysis was noticed on the right side for the first time.
9 A. She can corrugate and frown, close her eyes, and draw the angle of the mouth towards either side; but these actions are evidently more powerful on the left than on the right side; the right pupil is comparatively dilated; she complains of a wish before her eyes but not diplopia; tongue is protruded towards the right side. There is some slight assistance in extending the right forearm, she cannot voluntarily extend it, but readily moves her fingers; if the right arm be placed across the chest she can exercise sufficient muscular agency to replace it on its own side. The movement of the legs was tolerably perfect, but some hesitation and comparative inability in moving the right limb. The heart's action was irregular and a loud systolic blowing murmur heard over the apex. Pulse small & running 113 per minute. She frequently draws a deep
breath, with sighing prolonged expiration. Stomach aconite, flattened; skin over the

Julipum Ammoniac. tor in dec.

10th. The complaint of pain over the left ear,
it; intermittent exacerbations of pain. The
legs in bed on her back aches, with the eye
tonicised; face very pallid; tongue covered
with irregular patches of white fur; median
arch of tongue feathery over towards right
Microscopically. Many blood corpuscles, some
distended and rounded, others much collapsed
and shrivelled; a few large granular extraneous
corpuscles; crystals of uric acid; tartrated uric
acid, and conical vesical epithelium. She in
voluntarily passed her urine and faeces in bed.
Large masses of undigested orange peel noticed
in her stool, which was quite liquid.

Paralytic is just the same.

11th. She was very restless and fretful, calling
out and groaning; heart acts irritably.

12th. Paralytic the same, skin cool, the is quite
cheerful this morning, volun.ing remarks.

Urine. St. Gr. 1010. Deep albumen, but copious specific
state of the triple phosphates.
13 th. Mark acting up irritably; paralysis of face the same, but she can move the right arm and leg much better, can clasp a book firmly.

15 th. Paralysis has almost disappeared.

27 th. The steadily improved up to this date. Her paralysis had disappeared and she was considered convalescent. This evening however she complained of urgent sickness, loss of the power of speech, at times quite unconscious, and hemiplegia of the right side returning.

Dr. Brandy and Soda Water ad libitum.

January 2nd 1866. In addition to the symptoms in the previous report, diarrhea and nocturnal sweating occurred. Urine still albuminous.

Dr. Sarsa Arum & Opio. (3d.)

Dr. Stychnine - gr. f

Acid Acris dil. Fj

Aqua distill.Fr.iii. Fid. Priscura Capit. cochlear. Magnum unum Bis in die.

9 th. The remained during the past week in a state of semi-consciousness; complete hemiplegia of the right side, involuntary evacuation of urine and feces, diarrhea and sweating. Mark's action very irritabile. 120 per minute. She sank gradually, and died quietly at 4.2 a.m. This morning.
There was an abrasion on the anterior mitral valve corresponding exactly in size to the fibrous detached plug found in the left internal carotid artery.
Post Mortem. 11 hours after death. No signs of decomposition. Body diminutive and much emaciated. Brain presented nothing remarkable externally, but on opening the ventricles and examining the corpus striatum and optic thalarnus on the left side, three parts felt soft although it was not very manifest. No great excess of fluid in the ventricles. At the base of the brain the left carotid artery was found to be entirely obstructed by a fibrous plug. This extended from the point of the vessels Exit from the carotid canal to the giving off of the cerebral branches, and proceeded a little way into the middle cerebral artery. The corpus striatum and optic thalarnus when cut into appeared somewhat softer than natural, but it was very doubtful; but on submitting the parts to a microscopic exam., numerous granule masses were seen, and granules accompanying the capillary vessels. To opposite.

Thorax lungs healthy. Tone of heart natural. Pericardium healthy. The mitral valve was much discolored by acute inflammatory process, its whole internal surface was covered with vegetation. The cords were also covered with them, and to these numerous conules of small size were
also attached. The corda triducum were soft and one or two were lacerated. The vegeta
tion proceeded upwards into the left auricle, where a large patch of them existed on our side. Abdomen. Peritoneum healthy. Liver congested. Jl
era large and congested, at one end it was very firm, and felt as if there was a conglomeration within; but a section showed only a mass of minute extravasations. Kidneys contained a few fibrous masses; some recent, and others contracting, causing cicatricial depression. The whole structure of both organs full of small extravasations, the Malpighian bodies containing blood of
furred within them, giving the surface a spotted appearance.

Commentary. at end of Case 13; under the head of Embolism.
Disease of the Heart: Embolism.

Hemiplegia.

Mary Allan, aged 30. Servant, was admitted into the Clinical Ward No. XI, under the care of Dr. Laycock, October 23rd, 1861.

An extract from notes taken by Richard Davy.

About the year 1856, she complained of cough, dyspnoea, and palpitation, which were much increased on her taking any exertion. In the beginning of September, 1861, her cough and palpitation suddenly increased, she felt herself generally unwell, and two days before her admission she noticed oedema of the lower extremities. She states that she has never had rheumatic fever, but has often complained of fleeting recurrent pains in her joints.

On admission. Circulatory System: Cardiac irregular; pulse diffused; transverse dulness 2½ inches. Action irregular and tumultuous. Loud blowing murmur is heard with the first sound at the apex and not at the base. Pulse very feeble, irregular, 96 per minute. The complaint of constant palpitation, and very distinct pulsation in the neck, and the repeated oedema of the lower extremities. Orthopedia: the muscles of the arms are freely acting, and the...
whole process is laboring and performed with difficulty; her cough is constant and very harassing; on physical exam, dulness at both bases anteriorly and posteriorly; coarse crepitation heard with inspiration, and expiration is very much prolonged, and attended with vibration. These sounds are very generally heard all over the chest; vocal resonance almost aegophonic at the angles of the scapula. Sputum is mucopurulent, gelatinous, and streaked with dark serum-cooking blood.

Digestive System. Her tongue is covered with a white-brown fur; she has complained of anorexia and anuria. Vomiting frequent; she has not been very temperate nor careful in her diet. Bowels confined. Hepatic organs normal.

Integumentary System. Features are congested; her lips are quite cyanotic; countenance is altogether livid and expressive of great suffering. Superficial veins of the head and neck are turgid; her extremities are cold and dry; feet and legs very edematous; hands slightly so.

Genito-Urinary System. Pain in her back and loins. She had an illegitimate child in 1836. No menstrual discharge appeared today. Urine discolored of a dark red colour, not scanty nor yet albuminous.
Nervous System: She complains of pain in the precordial region, and of constant palpitation. Her nights are generally very restless; she commonly suffers from cephalalgia of a subdued kind, her mental faculties are clear, and her spirits buoyant and quite hopeful.

She was ordered a draught of Alter Sulphur 2°F.
Solutiones Morph. Muri-mpx. 25t.

Dry cupping over the posterior aspect of the chest, to be followed by turpentine fomentation.
For hot bottles to her feet: Wine 3iv. Gni. 3iv.
Beef Tea. 6iv. 3f.

October 20th: Dyspnea less urgent since the above treatment. She was ordered (to relieve her sickness) Rx. Pots Ammoni Arom. 3iv.
Acid Hydrocyan. dil. 3ii.
Szech Cardam. Co. 3ii.
Syrupi Aurantii 3f.

M. Capiat Haust. Integumi oper. 2iv.

November 10th: She complains of increasing palpitation and dyspnea; complete inability to lie down in her bed for fear of asphyxia.
On testing her urine today, a considerable quantity of albumen was precipitated.

November 16th: Edema rapidly increasing; and greater amount of albumen in her urine.
November 16th. Punctures were made at the internal malleoli of both ankles to afford exit to serum; for both legs were tense and glassy, skin attenuated, and threatening to burst spontaneously. At 3 o'clock p.m. Dr. John Simpson (resident physician) was summoned to her bedside on account of a sudden change in the state of the patient. She was found with her head and shoulders raised up in the bed, leaning on her left side. The facial muscles on the right side were strongly contracted; both eyes were closed, and the angle of the mouth drawn up on the right side. The tongue was protruded to the left side; there was some hesitation in her articulation noticed; consciousness unimpaired. Pupils were dilated. She complained of pain localised in the right side of the head over the parietal bone. Complete loss of motor power in the left arm, and partial immobility of the left leg. The sensibility of the left side was not in the slightest degree impaired. The temperature of the left arm was diminished, but the oedema decidedly increased; so that the pulse could scarcely be felt on the left side. Pulse on the right side 70 per minute.
Her was ordered. Brandy 3 1/2 p. e last station Coughing glasses to the shape of the neck. Eumira Feriniuinae & Ol. Ricini.
A tablespoonful of Brandy to be given every three hours.

Vespers. q. p.m. Slight incoherency and delirium. Endt. dythæ 6 x 4-inch.
November 17th. The patient very feeble, and yesterday's report is quite applicable to her present condition; she experiences great difficulty in deglutition, and the food accumulates in the left side of her mouth. Urgent dyspnæa; expectoration brought up in copious bloody masses. Face sweating profusely. Urine dark; lètissates plentifully, and slightly increased quantity of albumen.

November 18th. Paralysis, cough, and expectoration the same. Increasing quantity of albumen. Vespers q. p.m. She is very weak, judicially. Occasional wandering delirium, with intervals of complete consciousness.
Nov. 19th. Much weaker and dyspnæa urgent. She is constantly moving her right leg and arm in the bed, but the whole of the left side is motionless. She frequently puts her hand to her forehead, as if it were painful. Features are less distorted. Low muttering...
Delirium. Oedema has nearly disappeared from the right leg, but has greatly increased in the left limb; the right arm is also less edematous than the left. Very restless. November 20th. Delirium persistent. Feces and urine passed involuntarily; she gradually became comatose; stertorous breathing came on this afternoon, and she died at 9 o'clock p.m. apparently without pain, and also without any convulsive movements.

Post Mortem. 13½ hours after death.

Head. On removing the calvarium and dura mater, the membranes of the brain were quite healthy. The lateral ventricles contained about the natural amount of serum, and the corpora striata and optic thalami on their ventricular aspect were examined and presented their normal appearance. On examining the vessels at the base of the brain, the right middle cerebral artery was found obstructed in the Sylvian fissure. This occlusion was situated at the point where the artery divided into its chief branches of distribution; and was caused by a small clot 0.2 inch long, which presented the same appearances as that subsequently found in the left ventricle. In one of the 3
divisions of this right middle cerebral artery was a loose, dark secondary clot about 1/2 an inch in length. The artery, before it was cut into had an irregular bulging appearance, and felt hard and knotted to the finger. The substance of the convolutions in the vicinity were found softened, and on section this action had extended towards the ganglia so as just to implicate the outer and lower border of the right corpus striatum. On subjecting this softened material to microscopic exam., it was found to contain much granular matter and numerous compound granular corpuscles. The surface of the pons Varolii was stained of a blood color. The rest of the brain was quite healthy.

Trunk &c. The corpse was universally edematous, but especially well marked on the left side. Some small purple spots about the size of six piny peas were noticed on the left forearm. The features were livid, on the left side approaching to cyanosed. The belly on alternate percussion evidently contained much fluid.

Thorax. The pericardium was exposed to a larger extent than usual on removing the sternum.
Clot in left ventricle.

Natural size.
Excess of fluid in the pericardial sac, and a firm adhesion at its apex; the whole heart was large and bulky; its right side was especially gorged with blood; walls of the left ventricle very much hypertrophied. Adherent clots were found on both sides of the heart; near the apex of the left ventricle was an irregular clot of the size shown opposite; it was adherent to the columna carneae, of a brownish red color, and softened in the centre; evidently ante-mortem.

The aortic valves were incompetent, somewhat thickened; and adhering to the margin of each was a fleshy-looking organised growth. The mitral orifice was much contracted, owing to thickening and drawing together of the valves, and admitted a little more than an ordinary sized little finger. The diameter of its orifice was 72 of an inch, its circumference consequently 2.16 inches. The left ventricle was much dilated, so also the left auricle; the right auricle and ventricle were hypertrophied and dilated.

The heart weighed sixteen ounces; its microscopic appearance was perfectly normal.

Lungs. Pleuritic adhesions, especially on the left side. Lungs both adematous, exhibiting fibroid degeneration, not breaking down on the application of the finger's pressure. Marked
congestion of the bronchial lining membrane. Sputum filled with a rusty-stained mucus.

Abdomen: Large distended peritoneal sac from serum of ascites. Quantity not measured. Liver was moderately firm and in the flabby condition. Spleen was firm, capsule was changed and thickened; its tissue healthy. Kidneys were large and congested.

Commentary: at end of Case 13, under the head of Embolism.

Andrew Ford, aged 21, Sonar, admitted into the Clinical Ward No. X under the care of Professor Bennett, May 2nd 1861. From notes taken by Richard Davy.

On admission, May 2nd 1861. He was brought to the Royal Infirmary by the police, who stated that he had suddenly fallen in the street, and was insensible on their lifting him from the ground. No history of preceding insensibility. When seen by the resident physician, he was in a drowsy semi-comatose condition, perfectly helpless, but he could be moved by pointed and loud interrogation, when he would answer quite intelligibly and relapse again into his former stupor.

He was put into bed; both legs were then found very oedematous; pain was marked over the right loin, and pressure on perineum over the chest elicited lively manifestations of inconvenience. It was immediately induced to pass his water, which was found of a portentous color, evidently con-
Taining much blood, and distinctly albuminous.

Microscopic Exam. Numerous fatty and granular tubular casts, a large quantity of blood globules, and corpuscles resembling pus; degenerating epithelial scales, granules, and some molecular matter. See opposite.

On auscultation: Tachycardia and sonorous rots heard all over the chest, especially on the left side, and at the apices. Vocal resonance modified but not much increased. Pulse 120, strong and somewhat jerking. The heart's action was tumultuous, but no bruit was recognised.

Milk diet.

Pj. Ulei Ricini 3 fl. statim eumendam.

Pj. Ulei Antimonii 3 fl.
Liquoris Amonii Aert. 3 fl.
Aqua 3 IV.

Capiat cochlear magnas unam tertia quotidianum.
May 4th. His stupor and previously described symptoms continue. He was more drowsy than before. Bowels not opened by U. Ricini.

Pj. Tylo. Salicae Comp. 3 fl. statim.

Pj. Potaesi Acetatis 3 fl.
Salis Alter inid. 3 fl.
Aqua 3 VIII.

Capiat cochlear magnam II ter quotidie in die.
May 5th. Cardiac sounds normal. Tachycardia especially well marked over the whole of the right lung. The left arm is completely paralyzed, the left leg feels heavy, useless, and considerable effort required to move the limb imperfectly. The sensibility is perfect, and not reduced. The whole of the left side is very paretic; the tongue was protruded to the left side; no drawing of the face to one side recognized.

May 8th. He complained of excessive dyspnea, for which he was ordered a draught of Chloric Ether and Vick. Cardam Co. station.

He can be roused by loud talking and directed questions; he makes a short monosyllabic answer and roders into his semi-comatose condition. He can move his left leg with greater freedom, but has not the slightest use of his left arm.

May 9th. The Chloric Ether draught relieved his dyspnea for a considerable time; but it returned this evening; and he was cupped between the scapula to 3r; but not with any marked benefit.

May 10th. With the same; turpentine strips were applied to the whole chest. Paralysis as before.

May 11th. Cough and dyspnea very urgent.

Pulse 126; rather feeble. He was ordered a cough.
mixture. Pt. Synapht. Other. Chloride. 3/4
Chlorodyne 3/4
Fiust Camphore. 3/4. 4th
Capsaicin partem tertiam, utique opus sit.
May 15th. His dysphoria continues to increase, threatening asphyxia, hiccup frequent, stupor
and paralysis the same, but the adema on the
left side has increased. His experiences great dif-
culty in articulation. Brandy 3/4
Pt. Ammoniac Carb. 3/4
Fiust Camphore. 3/4. 4th. et capiat
part. quartam sae aqua quarta quaque hora.
At about 9 o'clock this evening the patient
became very irritable with low muttering delirium,
dysphoria much increased, and evident precocious
symptoms of death.
May 16th. He continued very irritable and rest-
less up to 3 o'clock a.m. When he complained
to the nurse of great thirst; he rose from his
bed to get some water, fell forward and in-
stantly died.
Post Mortem. 57 hours after death. Rigidity
about
Thorax. The heart was of natural size; aortic
valves healthy, but several vegetations were
attached to the mitral valve, varying in size from a rape seed to that of a large pea.

Puckerings and indurations at the apices of both lungs; and pleurae connected by firm adhesions.

At the right apex, there was a remarkable stellate cicatricial patch, with a nodule felt below corresponding to a mass of tubercle, which was gradually contracting. The left apex was infiltrated with chronic focieties of tubercle, and small indurated masses of tubercle studded the upper third of the left lung.

Brain. On cutting the brain down in the usual manner, the Corpus striatum in the right lateral ventricle was found much enlarged and softened. On section a cavity corresponding in size to a bean was noticed. On subjecting the part to a dripping stream of water, it readily crumbled away, and an irregular excavation was produced. On examining the Sylvian fissure, the middle cerebral artery was seen to be obstructed on the right side by a tolerably firm fibrous plug, rendering the lute imperforate for a distance of half an inch. The right corpus striatum histologically contained numerous granules, and compound granular cells; the rest of the brain was quite healthy.
The liver and spleen healthy. Kidneys were both enlarged. The cortical part presented a fawn colored aspect, smooth and not at all granulated. The coats were not much atrophied. The whole organs looked congested, and their substance felt soft and readily broke down under the finger's pressure. On microscopic examination, the tubes easily separated, and were somewhat larger than natural; they were uniformly filled with droquamative epithelium. The Malpighian capillaries looked opaque and indistinct. A dense molecular matter was scattered also in masses over the whole field. Blood corpuscles were seen also entangled in the epithelial casts.

Commentary on Cases (11), (12), and (13).

Embolism.

These three cases illustrate in a characteristic manner this most interesting form of disease originally described by W. Gulliver of London, and subsequently, in our own time, by Professor Virchow, of Berlin. Vide Cellular Pathology.

The cases speak for themselves. (Case 17) is one of Rheumatic Endocarditis. Embolism of the left internal carotid artery and middle cerebral, acute inflammation of the mitral valve, and vegetations on the wall of the left auricle, on the mitral valve, and chordae tendineae. One of these vegetations had evidently become detached, and had plugged the middle cerebral artery on the left side; that this vegetation had originally been attached to the mitral valve was proven by an abrasion accurately corresponding to the size and appearance of the plug in the artery. White softening of the left corpus striatum and optic thalamus had resulted, with hemiplegia on the right side. The advantages of histological examination in clearing up a doubtful embolism was clearly proven in this case. The spleen in this case was firm and congested, and on section showed a map of minute extravasations, which probably depended on minute embolisms affecting the splenic capillaries. The kidneys also contained a few fibrous masses with numerous extravasations affecting the Malpighian tufts of capillaries. It was very interesting to notice that isn't albuminuria commenced on the day...
following the first occurrence of impairment of her mental faculties, while the hemiplegia occurred first on the day following the early symptoms of paralysis of the facial muscles.

(Case 12) was that of a middle-aged woman who had complained of frequent pains in her joints, but never had suffered from rheumatic fever; she was admitted with her aortic valves thickened, and her mitral valves contracted, and was suddenly seized with hemiplegia on the left side; disturbance in articulation, and cephalalgia on the right side. Sensibility and consciousness unimpaired; temperature of the body diminished; pupils dilated. She soon became delirious, and sank in a comatose state four days after the occurrence of the hemiplegia. In this case the heart was hypertrophied, adherent clots were found on both sides of the organ, and a large ante mortem clot in the left ventricle. Fibrous organised growths were found adhering to the thickened aortic valves, and advanced stenosis of the mitral orifice. The right middle cerebral artery was severely
plugged in the Sylvian fissure; the neighbouring convolutions were softened; and the corpus striatum on the right side showed numbers of compound granular corporules. Both lungs were edematous, the whole bronchial membrane congested, and the tubes filled with rusty-colored mucus. This condition of the lung ought always to be borne in mind in cases of sublemon; for whatever causes impediment to the respirating circulation will necessitate a coagulation and stasis of the blood in the pulmonary vessels; hence the common occurrence of fibrinous tissue which may be drawn out from the pulmonary vessels in cases of bronchitis.

This case exemplifies the general law that facial paralysis occurs on the side opposite to the encephalic lesion, a pathological fact requiring an anatomical explanation; now, as opposite paralysis in the trunk and limbs may be satisfactorily explained by the distribution of the pyramids, so also recent observations certainly indicate that the groups of nerve cells from which the growth nerves originate (which are anatomically and physiologically identical with the groups of nerve cells from which
The spinal nerve filaments take their origin are connected (as those in the spinal column are) by nerve filaments passing upwards from the medulla oblongata to the brain and to the decussations of the ascending filaments just alluded to; so that there are safe grounds for assuming an anatomical decussation to exist for the seventh nerves in their connection between their origin and the brain, as in the case of the nerves supplying the trunk and limbs.

I cannot avoid alluding to some most interesting facts noticed in this patient's case. On November 16th 1861. The urine was albuminous. Both legs were enormously distended with urine, the skin was attenuated, tense, and glistening, and threatening to burst spontaneously.

On the same afternoon hemiplegia on the left side came on; and immediately the adema on the left side increased, while that on the right side rapidly diminished.

On the 19th of November 1861. 3 days after. The adema from the right arm and leg had almost entirely disappeared; while the contrast with the left arm and leg is most marked and striking; the left extremities
Case of Ruptured Popliteal Artery. Mr. Bland

1. Popliteal vein uninjured.
2. Ruptured artery, firmly plugged.
3. Sub-popliteal space, incised & evacuated.

Ph. Bland. Discovered at 9th day.
present one hugely bulging adematous mass, having increased to an extent almost incredible. This change that had taken place in the innervation of the part, and also in the autonomic system of nerves, and the influence this attack of hemiplegia had over the adema, by causing it on the unaffected side and intensifying it on the paralyzed limb, was especially dwelt upon by Professor Laycock, who gave his class an admirable lecture on the subject of adema, bringing forward his own researches and those of Bernard and Brown-Séquard, which were most interesting and assisted to elucidate the explanation of this curious phenomenon.

The mechanical theory as a sole explanation of the cause of adema is not recognized, and I may here be allowed to mention some facts which I noticed while acting as dresser to Mr. Hilton, surgeon to Guy's Hospital.

Two men were admitted into the Hospital during the same week suffering from ruptured popliteal arteries; but in one (Case I) the internal popliteal nerve was injured, in the other the popliteal vein (Case II); now although the amount of distance removed at the time of
Case of Ruptured Sphincter Artery - W. F. Blund.

a. Artery secured above & below by ligature.
b. Sphincter torn, bruised and torn.
c. Internal sphincter more uninjured.

G. Davy, surgeon.
ad nov. delt.
accident was more severe in Case II than in Case I, yet from the fact that his brachial
pressure were uninjured, the subsequent edema was notably less in Case II than in Case I.

(Case 13) is another very good illustration of the disease under comment; this was in
many points similar to (Case 12). A young
man evidently suffering from some calcular
disease of the heart, hematuria, albuminuria,
and general bronchitis suddenly falls down
in the street irremovable on May 3rd, 1865; he
remained in a drowsy-comatose condition, but
on consciousness returning partially, he was found
to be hemiplegic on the left side; especially affecting
the left upper extremity; he continued much
in the same condition for 10 days, when extrems
dyspnea, increased edema of the left side, and
paralysis supervened; he subsequently became
irritable and delirious, and on rising from his
bed early one morning to quench his thirst he
suddenly fell forward and died, exactly two
weeks after his first attack of insensibility.
The post-mortem revealed plugging of the right
middle cerebral artery; a granular softening of
There were numerous vegetations on the mitral valve, varying in size from a rape seed to that of a large pea, and many of these vegetations were pedunculated and hanging loosely—so that it was naturally supposed that one of these had been washed off, and carried to the brain along the course of the systemic circulation.
The right cerebral stricture. The frequent occurrence of a fibrinous plug in the right middle cerebral artery may be easily explained. The right side is selected from the fact that the innominate is the first large branch of the aorta. The middle cerebral from the facts; {firstly, that the piece of fibrin detached, and the dimensions of the middle cerebral artery coincide in capacity; being in three cases always less than one-fifth of an inch in diameter, so that its passage through the carotid canal is guaranteed. Secondly, the principle of the lodgment of foreign bodies in the branches of the carotid is equally applicable to the occurrence of fibrinous plugs in the middle cerebral; for as the right bronchus generally receives the foreign body, being the larger and lying in the most direct road of the respiratory tract, from the anatomical relation of the spur shown in the diagram at the point of bifurcation; so also in the course of the circulation, the middle cerebral artery is the largest and most direct branch of the internal carotid artery after it has passed through the petrous portion of the temporal bone.

The treatment of these cases is very unsatisfactory.
The alkaline or resolvent treatment as recommended by Dr. Richardson of London is certainly the most scientific. He endeavored to combat this condition of Hypernemia by York doses of the Sesquicarbonate of Ammonia, which acts as a Stimulant as well as a resolvent; Ammonia was administered in Cases 12 and 13 to relieve dyspnea, but its exhibition was not attended with any appreciable beneficial result.
and as I know of no remedy which acts beneficially in these cases, it would be 
unconsistent to comment upon the treatment.

Some few general remarks on the Diagnosis, Prognosis and Treatment of Cerebral Diseases.

The cases here reported have necessarily occupied so much space, that I shall restrict myself to a very few remarks under each heading; for our leading practical physicians of the present century have greatly advanced the study of scientific medicine by recognizing the absolute necessity for reporting clinical cases minuteness, and I confidently say that the truth of every symptom and change noticed in these Reports has been carefully attested by myself and others at the patient's bedside, so as to ensure the strictest attainable amount of accuracy by the persevering collection of facts.

First. With regard to the Diagnosis of Cerebral Diseases. A clerk or a physician
cannot value too highly the advantages derived from obtaining a clear and accurate history both of the patient's antecedents and of the circumstances connected with the immediate attack; therefore see the patient on his admission, and note down his own statement as well as that of his friends. Symptoms not only materially alter soon after admission, but in some cerebral cases coma may rapidly supervene, and the main facts on which we depend for our diagnosis are absent, through careless neglect of this most simple rule. A clear history in brain cases is the foundation stone on which we have to build, and in this respect their study differs essentially from that of the thoracic or abdominal viscera; the latter are subject to the precise investigation of physical diagnosis, but in the case of cerebral diseases these means are of little or no avail. Our advancement, I maintain, in the diagnosis of these lesions consists in collecting a number of well reported cases to work upon; and in every cerebral case that falls under our own observation, the symptoms testified in each must be most minutely investigated and recorded; an aggregation
of clinical facts will be handed down, "Then old experience will attain
"To something of prophetic strain." I am quite convinced that this method
of arriving at clinical exactitude does in some degree account for the very correct
and acutely expressed diagnoses formed during the last session by our Edinburgh Clinical
Professors in many obscure cases of Cerebral
disease.
I may be pardoned for drawing attention to
a peculiar form of subconjunctival degeneration
which I have repeatedly noticed in cases of
atheroma of the cerebral vessels, and associ-
ciated with arcus senilis or fatty degeneration
of the margin of the cornea. I have made
use of this physiognomical symptom more
than once in practice, and in the cases cited
it materially aided the diagnosis. This
deposit is noticed generally on each lateral aspect
of the cornea, but never passing over it; and
stretching in a pyramidal form towards the
external and internal canthi, the apex being
directed away from the pupil, and thus differing
from pterygium. The most frequent spot for its
occurrence is over the insertion of the internal rectus muscle.
At this spot it may be easily recognised as a small prominent elevation beneath the conjunctiva (the vessels of which may be seen ramifying over it), it presents a subdued yellow tint; and fatty degeneration of the cornea almost invariably accompanies it. See drawings on opposite page.

The function of vision is not at all interfered with mechanically, and therefore this change is frequently unnoticed by the patient.

In Case 3 I had an opportunity of making an histological examination; the conjunctival epithelium and vessels were distinctly made out, and a deposit of fatty granules and amorphous material was closely applied to its under surface. See opposite.

Localised cephalalgia has in many of the patients entered in these reports been a most valuable symptom in aiding the diagnosis; in some cases they could put their hand immediately over the seat of lesion; and it ought to be borne in mind that although the brain in health is devoid of common sensibility, yet when damaged it sensitively appreciates pain.
The Prognosis of these forms of Cerebral disease is very unfavorable from the result of our limited statistics, twelve out of thirteen patients died, or 95 per cent. In all cases it should be most guarded, in many entirely withheld.

The Treatment that I would principally rely upon, as being the most philosophical in Cerebral Diseases, is most simple yet at the same time most difficult to be effectively carried out; I allude to the strict maintenance of Therapeutic Rest. In surgery the advantages of rest are fully appreciated, and carried out more effectually and tangibly than in medical practice; but what organism calls for a greater refinement in our applications of Therapeutic Rest than the Brain?

The less complex the organism, the easier the fulfilment of this beautiful, because natural, method of treatment. No large Hospital or Clinical Institution should be without its appropriate ward for such cases; can we expect the non-professional world to appreciate this grand principle, this great advantage of perfect rest, unless physicians enforce the point?
more strongly in our Clinical Wards? I have frequently seriously considered how very unfavorably cerebral cases are situated in the ordinary Medical Wards of an Infirmary, and my attention was especially directed to this point while acting as Clinical Clerk in one of the London Hospitals. "A physician on leaving the bedside of a patient suffering from meningitis called the nurse, and strictly enjoined that the patient should be kept absolutely quiet. The nurse, with automatic obedience, replied that her instructions should be most sedulously carried out. The physician left the ward satisfied, and the nurse calmly slammed the door. The next harangued the whole ward in a long, wound-up speech, and with her vocal cords in a peculiarly high state of tension, intimated the doctor's order that the ward must be kept quiet. As soon as the necessary clamor attendant upon dining had just subsided, the zealous minister placed his chair immediately at the foot of our patient's bed, and read in a loud and deeply impressive voice a long extract from an Evangelical tract for the benefit of suffering
humanity. I sincerely trust that these few remarks will not be supposed to savour of levity or exaggeration. I have related it as plain matter of fact; and if special words are provided for patients whose wish and pleasure it is to be superseded and assuaged, surely common humanity would accord a special accommodation for those, whose very looks gently and touchingly appeal to our educated senses, imploring us to grant them the benefits of extreme refinement in prescribing for them the utmost attainable limit of therapeutic visit.

The various other methods of treatment in Cerebral Diseases have been inserted in their own especial places, and therefore need not be summarised here.

In concluding this exercise I cannot feel too grateful to my Clinical Teachers for their kind instructions and polished courtesy; it has been my endeavour to avail myself of these advantages, and to carry out their standard principles; by imitating their bright examples and virtues, I trust that we, as diligent pupils, may hope to contribute our
share to the further advancement of the study of Clinical Medicine; there yet remain sufficient raw material for scientific manufacture, therefore let all volunteers at once to assist its destined elaboration, for "Our Christian art faith neither solstice nor meridian; "Safety is certain only in advance, "And he is falling that ascendeth not."