Bright's Diseases of the Kidneys
Clinical Cases with Remarks

Thesis for M.D. degree 1885

By

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In the following Paper it is my intention to relate eight Clinical Cases exhibiting the Three Varieties of Bright's Diseases of the Kidneys and discuss and analyse the symptoms of each Variety. They have all occurred within the last two years and in my own Practice.

There are,

Three Cases of Acute Inflammatory Bright's Disease in Young People
Two Cases of Acute Inflammatory Bright's Disease in Puerperal Females
Two Cases of Cirrhotic Bright's Disease in Adults
One Case of Amyloid or Waxy Bright's Disease in an Adult

Acute Inflammatory Bright's Disease
Case I. Margaret Sharp aged 16
Patient is a stout healthy country girl accustomed to work out in the fields, has had no previous illness since infancy. Had menstruated regularly for one year.
After a hard day's hoeing upon wet soil during the course of menstruation, she drove in a cart for four miles and returned late on a chilly autumn evening. She complained only of feeling tired and went to bed but had two distinct rigors. During the night she slept soundly but awoke in the morning unrefreshed. The symptoms then were—severe frontal headache, want of appetite, general lassitude. Towards evening vomiting commenced and continued at regular intervals with increasing apathy, long drawn sighing and aggravation of headache. This was followed by a restless night and in the morning the advice was sought.

State on Examination. Patient was found lying in bed in prone position, face flushed, puffiness visible about the eyelids, pupils dilated, also nose dilating with respiration. Respiration 30 per min. Temp. 103°. Pulse 120°. Patient seemed very intelligent and not to be at all in the torpid
torpid condition which the succeeding
patients exhibited. She complained only
of severe frontal headache implicating
the orbit of a dull throbbing character.
She noticed also the breathlessness, but
no pains in any other region.

Alimentary System. Lips dry & cracked. Tongue dry, furrowed
posteriorly with tendency to brown
at the tip with cracks over the sur-
face. Secretions of mouth diminished.
Deglutition difficult. Want of appetite.
Vomiting absent. Bowels constipated
for 4 days. The abdomen on inspection
seemed somewhat prominent. Palpation
revealed no tenderness. Percussion showed
moderate Spleenitis.

Hæmopoetic System normal
Circulatory System. Absence of
pain in Precordia. Patient experienced
considerable palpitation and dyspnoe.
The apex beat was found normal in
5th left interspace 1¾ inches left of Ster-
num. Percussion revealed the heart
normal in position & size. Auscultation
also normal. Pulse 120 regular bounding incompressible. No pulsation visible in any of the vessels.

Respiratory System. Breathing is very rapid, about 30 respirations per minute. This was due however merely to the fever at this stage. Regular, thoracic and painless. Dyspnœa seen in the action of the chest. All being called into action. Throat and Tympani normal. No Adenæ present. Auscultation revealed a normal relation between inspiration and expiration. Somewhat harsh, no accompaniments.

Integumentary System. Skin of face flushed and dry over the whole body. Patient has tendency to obesity. Puffiness visible over upper eyelids and cheeks, also slightly on back of hands, feet and ankles. Anterior aspect of chest.

Uriney System. In this case there was no pain felt in loins but upon deep pressure there was decided tenderness especially on right side and less marked
on left. Patient had not micturated for 24 hours and complained of inability to do so but there were no calls to frequent micturition. The catheter was introduced and 4 ozs. of urine drained off and examined. It was cloudy of a dark chocolate colour depositing rapidly a copious dark precipitate and soon exhibited a peculiar offensive odour. On microscopic examination the deposit was found to consist largely of urates and blood corpuscles in a broken down condition. Specific gravity 1.025. Urea 30 grains. It was daily estimated by means of Hypobromite of Soda method. Deposit consisted of a very copious dark sediment. Microscopically this was found to consist of urates very largely, broken down blood corpuscles and epithelium. It maintained a uniform density for four days then gradually diminished not wholly disappearing until the 20th day. After the first two days there was considerable pain in the urethra which however yielded to barley water, hypogastrics
<table>
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<td>Distress</td>
<td>4</td>
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<td>Diarrhea</td>
<td>45</td>
<td>210</td>
<td>10/16</td>
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Tube casts were found very plentifully daily, chiefly consisting of the granular, epithelial and blood varieties. They were found during the whole course of the disease. Reaction of urine acid throughout.

**Reproductive System.** Beyond the fact that the attack was symp-
chronous with menstruation there is nothing of importance.

Nervous System. Patient lay in a somewhat listless condition unwilling to speak or listen. All the Special Senses were dulled especially hearing. Pupils were dilated and moved sluggishly under the influence of light. Occasionally however she would start uneasily and appear as if to be under some apprehension, her eyes following uneasily the movements of persons in the room.

Treatment and Progress. Three indications had to be observed as Dr. Grainger Stewart points out. (1) To subdue Inflammation (2) To remove the products of Inflammation from the Tubules. (3) To obviate the results of the Retention of excrecements & matter in the Blood. A full dose of Castor Oil was administered & followed shortly by 15 grs of Chloral & 15 grs of Potass. Bromid to prevent any Eclamptic tendency. This was accompanied by warm wet packing all round the body & abdomen. Foot
bottles were applied to feet & sides. Inf. Digitalis added to the foment. A mustard footbath was also applied to the back. Patient was given large quantities of skimmed milk to drink & barley water & Inj. Digitalis in 10 min. doses every 3 hours. These Remedies were continued from 9 in the morning till 6 in the evening, resulting in very slight diaphoresis & no diuresis.

At 6 A.M. without any warning patient had an Eclamptic seizure lasting 5 minutes. She became wholly unconscious. Pupils widely dilated, orbits turned upward & insensitive, teeth clenched, face congested, & whole body convulsed with clonic spasms. The administration of chloroform had slight effects on the severity of the fit but it may have cut short its duration. In 5 minutes the motions ceased, she became conscious & enquired her whereabouts.

A ½ gr. Hyoscyamus was now given, 20 grs of chloral & Pot. Brom: at once with a drachm
of Aq. Ammon. Acet. 15 min. of fluid digit. calis ordered every 3 hours. Patient were stopped & a tent rigged up in bed. Patient was stripped & steam constantly kept up by hot bricks placed in warm water.

The fits were repeated & continued at nearly half hour intervals all day 16 in number. Chloroform was always administered during the seizures. Saburium was repeated & injections given but all efforts at moving the bowels failed. Croton Oil was not given for fear of causing too great irritation. Towards evening the fits seemed less severe & not to last so long, the spasms being less violent. Patient never suffered from convulsions or was perfectly conscious between the seizures. She felt a sensation analogous to the Epileptic Aura in the arms & head always immediately prior to the attack & would then very often for more steam as she was beginning to realise benefit from it. In the second 24 hours she had 16 fits with short
intervals at first but becoming longer ultimately. Towards morning diaphoresis was very evident, breathing became much easier, patient slept occasionally but always awoke before the attack. She had been complaining latterly of dull aching pains in the Right Lumbar Region & it was decided to wet cup & 4 drs. of blood were removed from the loin & fomenta reapplied. She expressed herself relieved. Six drs. of wine were drawn off & found to contain 30 grs. of Urea & ¾ Albuminum Sp-grav 1024.

During the 3rd 24 hours there were 10 fits not so severe nor so long continued. The Insect. Digitalis was stopped & a pill, administered every 3 hours, of Scilla & Ammon. Carb. of each 2 grs. Tulv-Digitalis ¼ gr. It pil. Steam was kept constantly going & milky barley water plentifully given. Eight drs. of Urine drawn off, with 30 grs. of Urea Sp-grav: 1025

Fourth 24 hours, 3 fits 80 grs. of Urine
with 24 qrs of Urea Sp-grav 1024.
Fifteen 24 hours 2 fits 20 oz of urine
40 qrs of Urea Sp-grav 1030.
There were no more fits after the
5th day & the urine steadily increased
in quantity.
The Urea fluctuated very much
but the deposit remained still con-
pious though not so dark coloured.
The Sp-grav varied with the amount
of urine & the quantity of Urea. Chlorides
were diminished.
Albumen remained at 1/4 for 4 days.
For 1 day at 1/2, then 1/3 and gradually
diminished till the 20th day when there
was just a trace & on the 24th day nil.
After the 5th day the urine steadily
increased. She got 3 pills per day + in ad-
dition 15 min. of Liq. Ferr. & 1/3 Aq An-
mnow acet. four times a day.
By the 24th day she was all better but Ana-
emic. She exhibited Anemic murmurs
in the great vessels & in the Mitral area. Blood
pills were administered, but beef tea was prohibited for the 1st
12 days & milk wholly given. Patient is now wholly cured.
Case II. John Edmond; aged 13

In this case the precise date of origin cannot be definitely fixed. Patient is a stone breaker, and for several days in succession was found in a heavy sleep by the side of his heap, and from which he was with difficulty aroused. In the evenings he invariably fell asleep in a chair; this extreme somnolence was the sole symptom for which advice was sought.

State on Examination:—Patient was found in bed with considerable swelling of face; eyes were almost closed with edema. Ala-nasal dilated. Pupils widely dilated. Extreme dyspnea; it was very marked. Patient was unwilling to speak. All the senses dulled. Pulse 140. Temp: 104. Respiration 35 per min.

Hemopoietic System: Normal
Circulatory System: Absence of pain in precordial. Heart exhibited no hypertrophy. In mitral area 1st sound was replaced by a blowing murmur. The other sounds were loud and well marked. Pulse 140. Hard incompressible but regular.


Integumentary System: Skin dry, atonous. No marked râles in face, upper & lower eyelids, lips, anterior & posterior aspect of chest, wrists, hands, ankles, feet, scrotum, thighs.

Urinary System:

<table>
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<th>1st 24 Hours</th>
<th>Quantity 12 ozs</th>
<th>Urea 40 grains</th>
<th>Sph. grav 10/24</th>
<th>Albumen</th>
<th>%</th>
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<td>10</td>
<td>50</td>
<td>10/24</td>
<td>1/3</td>
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<td>22</td>
<td>60</td>
<td>10/13</td>
<td>1/4</td>
<td></td>
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</table>
The quantity of urine varied from 1000 grs to 2200 grs for the first 9 days, but of course this is not reliable as the patient had evidently been ill for days before advice was sought. Albumen was never more than 1/5. Urea again varied very much from 40 to 80 grains in 24 hours & the Sp. gr. fluctuated with the total amount of solids in the urine. The deposit was not so copious as in Case 1 & consisted also of urates in abundance & blood & epithelial debris. Reaction acid. Micturition frequent & moderately painful.

Reproductive System. The only details of interest were the penis & scrotum. The former being a well marked Ramachorn & the latter distended.

Nervous System. There was no Eclampsia in this case, but attacks of Convulsions frequently supervened lasting an hour or so. Pupil always widely dilated & sluggish. Patient slept well, night & day & appeared to enjoy repose.

Treatment and Progress. In this case clearly there was not the necessity for immediate precautions as in the last. The urine was never so scanty. The albumen was not so copious & there was more urea in the urine proportionately. The first
indication was to procure free evacuations of the Bowels; this was accomplished by means of castor oil. The warm pack was applied at the same time by clothes wrung out in hot water, & Inf. Digitalis added. A mustard poultice was applied to the loins, but cupping did not seem called for. Internally a pill was given consisting of 2 qrs each of Squill, ammonia bark, & 1/4 qv digitalis every 3 hours. By these means the Temperature was reduced to 102 ½ & the Pulse to 120. The dyspnoea was not mitigated. But whenever diaphoresis ceased the Temperature & Pulse at once rose notwithstanding the addition of 4 qrs of Quinine per day. This lasted for 4 days & nights during which time the Albumen remained steadily at ½ & on the 5th day it fell. Quinine was now discontinued & 20 min. each of :Liq: Ferr: Perchlor & Ag Ammon Acet every 3 hours substituted. The Albumen remained at ½ for 3 days then 1/6 & lastly a trace. The Urea fluctuated as usual between 40 & 80 qrs in 24 hours. The quantity of Urine remained low for 9 days from 12 to 22 oz but then we were able to cause considerable diaphoresis. The 34 grains:
varied with quantity of urine, urea & water, chlorides diminished. Intestinal were always present in the deposit granular, blood epithelial - never fatty.

In about 10 days after having been called in, patient was convalescent, i.e. 10 days since probable commencement viz. 4 more days. Albumen was entirely absent. Diet invariably consisted of milk, barley water, never Beef tea. 6 Bland's Piles were given daily. The Mitral Regurgitant murmur disappeared & patient is now cured.

Case 111  Robert Ferrie aged 12
Second Stage of Acute Inflammatory Bright's Disease. This case is still more indefinite in its origin than the previous one. He was employed cutting reeds by the river side with his coat off & his feet immersed in the water & in the face of a cutting East Wind. In the evening he complained of dull aching pains in both loins, frontal headache. He seems also to have had rigors & a dry fevered skin. Patient lived in a Bottle
and had no one to look after him, accordingly he struggled on at his work for a week, the lumbar pain & headache still accompanying. At the end of that time his feet began to swell at the ankles & instead also his hands & wrists. The face also took on a puffy appearance & Edema appeared in the eyelids. At the end of the second week all these symptoms had become aggravated; in addition he lost his appetite, became very cold & the least exertion brought on breathlessness. He was now confined entirely to bed & now the 18th day advice was sought.

State on Examination: Patient lay in bed upon his back, being unable to lie upon his sides from dyspnea. Pupils widely dilated & sluggish under the influence of light. Patient had a dull heavy expression. Edema present round the eyes, cheeks, lips, anterior aspect of thorax, wrists, hands, ankles, feet & penis moderately. Allo-mani moving with respiration, mouth wide open. Pulse 120. Temp. 102° Respiration 30.

food from being vomited. Bowels move daily though constive. A moderate degree of ascites is present & patient complains of considerable tenderness of abdominal walls.


Circulatory Systems. Tenderness felt all over the precordia. Percussion shows heart to be enlarged in the left ventricle. In aortic area a first sound is replaced by a minimus & in mitral area also. Pulse 120 hard tense & incompressible. Pulsation visible in carotids.


Integumentary Systems. Skin hot dry &
flushed, face congested, no eruptions. Generally rubor.

Urinary System. Urine high coloured. Reaction acid. 200 gph passed. Deposit moderate in amount, consisting of urates, corpuscles and casts. The casts are granular and epithelial with several fatty ones among them which aid the diagnosis that this case is in the second stage.

<table>
<thead>
<tr>
<th>Day</th>
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<td>20.07g</td>
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<td>19th</td>
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<td>30th</td>
<td>50.00g</td>
<td>200</td>
<td>10.20</td>
<td>1/6</td>
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</table>

Nervous System. No abnormality here save that patient lies dull and heavy. Reflexes are acting through sluggishly. No tremors nor eclamptic tendency.

Treatment and Progress. Thirty grains of pulv. saltp. were given and caused a copious watery evacuation. At the same time, i.e. on the 19th day of the illness as far
as can be reckoned, protrout Oil Liniment was freely painted over both sides. A Cushion was kept against the face, next day it fell to 2000 g., then rose to 50 g. Then to 34, gradually increasing to 50 on the 35th day. The urea was diminished in this case as in all the others, but fluctuated considerably. This was not due to diet as Milk & Rice Water was the sole allowance. The Sp. grav. was more uniform than in any of the previous cases & fluctuated between 1.024 & 1.030. Albumen never rose more than 1/3 & soon fell to 1/6. This I attribute to a combination of Liq. Per. Furo & Aq. Ammon. Actet in doses of 20 min. each every 3 hours. Patient's skin became very moist & gently perspiring under the above dia-
drophetics aided by the warm wet pack & Inf. Digitalis 4 in 4 days after treatment was commenced i.e. on the 32nd day the intense head-
ache yielded. It had been mitigated however by sinapism to the neck of the neck. By the 35th day the urine had reached 5000 g. Urea rose
to 200 g. in 24 hours & Sp. grav. was 1.020. Albumen was entirely absent after the 32nd day. This
case was therefore considered severe; but the patient was left very anemic. He was put upon Bland's Vills - 6 daily & Beef tea + Milk ad lib.; he rapidly improved & is now working. There is still evidence of Cardiac hypertrophy, but the murmurs are not so pronounced.

Case IV. Mrs. Wilkie, aged 18.

At 2 am. of June 14th, I was called to this patient. I found patient lying in bed in an Eclamptic attack. She was thoroughly unconscious & convulsed all over. The orbits were turned upward & pupils dilated, being wholly insensitive to touch or light. Teeth firmly clenched. Face suffused. Convulsive tremors shaking trunk & limbs. Pulse very rapid & so scarce as to be felt. Respiration at times scarcely perceptible. No history could be obtained of the case, except that she retired to rest in what was supposed to be her usual health & her husband was awakened during the night by the first Eclamptic attack. It is stated
that Eclampsia does not occur without well
marked premonitory symptoms, but in this
case they must have been so slight as not
to attract attention. There was not the
premonitory headache, nor giddiness, nor
spots before the eyesight, nor any impair-
ment of intelligence, but there was a dense
round the eyes, upon my examination
after the attack. The fits in this case were
preceded by a short tonic spasm of a few
seconds duration followed by clonic convulsions
beginning in the facial muscles & descending
to the limbs. That the involuntary muscles
were acted on also, was seen in cessation
of Respiration at the beginning of each attack
& the Relaxation of the Sphincter Ani.
The Patient was totally unconscious dur-
ing the attacks & the Conjunctiva insen-
sible & during the succeeding intervals of
the rest had no recollection of what had occu-
red. There was no premonitory aura in this
case as in Case 1, nor was there always
coma in the intervals. The fits lasted about
three minutes each and in all there
were 21 at intervals of nearly 20 minutes.
during the night. After the first 2 hours patient lay almost entirely comatose in the intervals as a rule, though occasionally she was perfectly conscious. I believe the coma was due to congestion in the vessels of the Brain due to pressure on the efferent Veins by muscular spasm.

The Patient had been 3 months married but was 9 months pregnant; an important fact as patient had suffered considerable mental inquietude for many months as was the case also in the succeeding maternal case; & I believe this to be a factor of some importance in these cases.

Clearly, then, the first indication was to make a vaginal examination. I found the vagina moist & fortunately roomy, a copious discharge of mucus & the os admitting the tip of the finger. Labour was commencing but the pains were feeble. Later on, when patient lay semi-comatose she groaned & appeared to feel each uterine contraction showing that the coma was not complete.
Upon Auscultation on both sides during a quiet interval, between the Umbilicus & the Ant.-Sup. Spinosus process the fetal heart could not be heard, a bad prognosis was therefore given regarding the child.

In this case the Eclampsia was not the cause of the labour as the indications in the Vagina & Os were too far advanced to have commenced merely after the first fit. My inference was that labour had set in first & Eclampsia followed at a very short interval. I decided as regards the labour that seeing the child was already dead to wait the full dilatation of the Os & then apply Forceps.

When the patient regained her senses after the first fit, 20 grs of Chloral & 20 of Pol. Broom were administered by mouth & a drop of castor oil placed on the tongue. The latter had the effect of clearing out the Bowels thoroughly. During the paroxysms Chloral was administered with decided effect in allaying their severity & the pain of
Pressure on the carotids appeared also to mitigate the convulsions. The vascular tension was severe, but the great vessels throbbed convulsively, but seeing the good effect of carotid compression, ligation was not attempted.

Diaphoresis was kept up during the night by means of the warm pack. Of the 21 separate attacks, the last 9 were decidedly less severe. Urine was drawn off with the catheter and found to be 1/2 Albuminuria. The urea was estimated afterwards and found to be about 2 1/2 %. A few granular casts were found.

At the end of 4 hours labour had proceeded rapidly, the OS was fully dilated & patient had had 18 fits, the latter being less severe.

The long forceps were now applied, although patient had 3 other fits during the period of application, delivery was safely effected. The child was dead as proposed, having become probably asphyxiated during the first Eclamptic seizure. Patient never had another fit after delivery. She lay perfectly still for 4 hours in a heavy stupor, then fell asleep. This may have been due to the
repentinon of chloral hydroxide 2 hours previously. In 3 hours she awoke perfectly conscious, passed water and had no recollection whatever of the events of the past 12 hours.

Hereafter recovery was rapid. The albumen diminished daily in the urine at the end of the puerperium 14 days not a trace was present. Within the first 24 hours after delivery she passed 30 ozs of urine containing 200 gms of urea. Spi-glass 10.24:4 within 4 days the urine had reached the normal standard with all its constituents.

Patient has since had another pregnancy and labour perfecta free from any complication.

Case V. Alison Johnston aged 18

This case resembled the last in many important features. Both are puerperal cases. They were both 18 years of age. Both had been married 3 months previously. Both patients were 9 months pregnant. In both the cases occurred at 3 A.M. In this latter case she was about 2 weeks
from her full time and there was a fatal result.

History: I was called up during the night to attend this patient, who was supposed to be in labour. I went and made a vaginal examination but found no signs of labour. Patient however complained of great pain in both lower and this had been mistaken for labour pains.

She appeared to be very obtuse and dull in intelligence and knowing her to be the reverse of this ordinarily, I got her turned round to the light when to my surprise the face showed very pronounced edema. The eyes were almost closed and the cheeks marked by puffiness. Lips thick pendulous. Forearms, wrists and hands edematous with feet and ankles in a similar State. Pulse 120. The Thermometer showed no rise. Patient was very cold and complained of headache. Upon inquiry I found that the swelling had been apparent for a month and that the urine had gradually diminished during that period.
Treatment and Progress. Aconite injection of strychnine and strychnine oil was administered per rectum. Chloral and Pot. Bismuth of each 16 grains given by mouth as a preventive, and a mustard plaster applied to the back of the neck with croton oil liniment over the coins. A tent was rigged up in bed, patient was stripped and steam kept constantly going by means of hot bricks in water. Warm clothes with inf. digitalis were applied to abdomen and back. These proceedings occupied from 2 to 4 A.M. but failed to accomplish diaphoresis. At 4 o'clock an eclamptic attack came on without any warning, followed by other four attacks at intervals of 15 minutes, patient being thoroughly comatose between them. A cessation for 3 hours followed during which time patient lay in deep coma, pupils dilated and wholly unresponsive. The application of steam was unwisely carried on 4 1/6 grains of nitrate of pilocarpine injected.
Subcutaneously thrice at intervals of one hour, but had very little effect in causing diaphoresis. Respiration during coma averaged about 25 per minute and pulse remained at 120 nearly. Very little urine was drawn off by the catheter and found to be highly albuminuric. Granular blood casts were afterwards found.

At 9 am, she had two moderate eclamptic attacks and the coma deepened. Always during the convulsive chloroform was assiduously administered and I think tended to mitigate their severity.

Anoxia was now (9 am) rapidly increasing, face remained suffused but cold, lips oozed. Respiration heavy and convulsive. Pulse 140. Percussion note of back and sides of chest was absolutely dull and unimpaired also in front. Coarse Râles were heard all over. There was clear, Serous Effusion. Adenoma of the lungs seen. Patient was becoming rapidly asphyxiated when suddenly a bright gush of Arterial blood from the nose announced at the same time rupture of a vessel at the base of the brain with fatal result.
I examined the urine of this patient amount 12,072s. Sp. grav. 1028 Urea 20 qty albumen .

Assessment repeatedly attempted during the night over the abdomen only gave negative results a prognosis of death of the fetus was given—Another feature of interest in the case, as the question of advisability of cesarian section might have been raised perhaps in France had an heir been in great request.

Labour did not commence during the eclampsia.

Analysis of the preceding five cases

The cause of the acute inflammatory nephritis in the first 3 cases was clearly a chill; & this I believe to be by far the commonest cause. Bartels remarks that the sudden contraction of the cutaneous vessels by cold drives the blood into the internal organs raising the blood pressure & thus causing congestion. That this applies particularly to the
Kidneys is beyond doubt owing to the well known Complementary Action of the Skin and the Kidneys acting together: that a sudden arrest of the functions of the Skin such as by Chill or Scalds throws more work upon the Kidneys. But this cannot be the full explanation for Frewich points out as quoted by Dr. Grainger-Stewart that the Kidneys are able to excrete large quantities of fluid which has been imbied without any inflammatory result.

Dr. George Johnson's Theory is more probable. That owing to the defective action of the Skin excrementitious matter collects in the Blood throwing to task of the elimination upon the already overburdened Kidneys which readily become inflamed. This seems to me more tenable than the theory of Irritation of the nervous system as it explains also the great liability of paroxysmal women to this disease their blood being loaded with excrementitious matter.
My 2 puerperal patients were both aged 18 both had become pregnant when unmarried & had suffered from mental depression in consequence as a predisposing cause. Dr. Diver's theory that the Eclampsia is caused by pressure on the renal vessels by the gravid uterus is untenable as other tumours do not produce this result.

Dr. Barnes' theory resembles Dr. Johnson's that the kidneys are eliminating excrementitious matter from the system.

Dr. Hicks considers it to be due to deleterious matter circulating in the blood & Dr. Grainger Stewart suggests that the morbid products may be evolved in pregnancy capable of leading to serious irritation of excretory & other structures.

It is a remarkable fact however that the Eclampsia isAlbuminuric cease as a rule as soon as the pregnancy is over; and this at first sight tends to help the theory of the pressure of the gravid uterus. But if we remember as Bartol,
shows that after delivery a very great change occurs in the supply of blood to the Abdominal Organs; in the Abdominal blood pressure after the birth of the child it is evident that that also may be the means relieving the hyperemia of the Kidneys suddenly.

The Fever.

Bartels remarks that the renal inflammation in itself does not necessarily excite Fever in every case but does not even at its outbreak always cause exacerbation of pre-existing Fever.

The temperature may rise in cases of chill as high as 104° but it is always of short duration; elevations only occur on secondary inflammation or on the outbreak of Uremic convulsions; but in my latter suppurational case the temperature did not rise. It may even have been subnormal, but the impending state of collapse would account for that.

Pain is not always present it is
seldom aggravated except in severe cases. As a rule tenderness or aching in the loins is the general symptom.

Micturition

A frequent or excessively urgent desire to frequent micturition with passage of only a few drops seems to be due in the beginning to reflex irritatation of the bladder and later on to catarrh caused by the presence of irritating matter in the urine.

Quantity of Urine.

is always diminished and may be entirely suppressed, but considerable fluctuational may occur even in a favorable case. The diminution may depend upon the congestion and occlusion of the Suburales. The experiments of Hermann demonstrated that "as the flow of urine along the Suburales outwards depends upon the blood pressure within the vessels being unopposed by any counterv pressure in the urinary tract, the application of such counter pressure as by obstructing the urer diminishes the
excretion, now it is clear that occlusion of the tubules must produce such counter pressure that the quantity of urine be proportionately diminished. The urine may be increased above normal in the 3rd stage which is due to 2 causes: (1) hypertrophy of the heart, (2) closure of capillaries due to the atrophy of the absence of counter pressure from obstructed tubules which are often now clear. Klebs describes the diminution of the urine to the proliferation of the nuclei between the capillary loops of the glomeruli. In consequence the capillaries are compressed & rendered impervious to the circulation of the blood.

Bartels regards the diminution in the rapidity of the circulation of the Blood through the vessels & its partial Stasis in the Capillaries as the cause of cessation of urine. In other secreting organs the rapidity of the Blood stream through the organ & the Activity of Secretion are in direct relation to each other. In addition there is not only the diminished rapidity
of circulation + partial Stasis in the capillaries, but also increased Transudation of blood plasma and extravasation of corpuscles from veins and capillaries. This affects both the Nutritive and Infunctional Vessels.

Bloudiness

Is due to Separation of Urates, presence of nucleic and granular debris.

Colour

Varies from "meat washing" to dark chocolate + is due to the varying quantity of blood.

Reaction

Always Acid

Specific Gravity

Varies very greatly according to quantity of Urine passed. Here the quantity of Urine Normal the Sp. grav. would be low owing to the diminution of Urea but as the Urine is always diminished at the beginning
the Sp. grav. may rise above normal to 1.020 or fall as low as 1.009.

Urea

The quantity of the solid constituents especially of the Urea varies with the Sp. grav. The Urea is always diminished in the urine & increased in the blood. The percentage may be normal only at the beginning when the urine is scanty & dense. It is seldom as as rule above 2½
ten cent & generally less. As the case progresses the urine becomes more abundant, the percentage of Urea & Sp. grav. fall.

Chlorides

Always diminished.

Albumen

is present in every case of Parenchymatous Nephritis but may occasionally be absent during the progress of the disease. In the Acute form it & the blood are due to the Inflammatory exudation into the Glomerulus. In the latter stages it may be due to 1st A certain degree of Inflammatory Process still
present. 2" If part of the Kidney is prevented from acting the increase of blood pressure in the acting portion may lead to Transudation of Albumen through the walls of the vessels. 3" When the basement membrane has been denuded of its epithelium the Albumen may more readily Transude through the walls. 4" The diffusibility of the Albumen may be so altered as to increase its power of Transudation. The Intermittency may be due to the fact of the diseased portion of the Kidney having its functions wholly suspended, while the healthy portion may secrete healthy Urine.

The Blood varies also very much & is due to the same cause as the Albumen. The Hematuria disappears before the Albumen Tube Casts were present in all my cases in large quantity. In Case III the Presence of Fatty Casts along with the HISTORY
made my diagnosis one of the 2nd stage. And the tests in the 2 preliminary cases caused me to place them among the Acute Inflammatory Bright's Diseases, although I believe some authorities are not agreed. Dr. Grainger Stewart enumerated 4 classes: 1st Bloody, fibrinous, epithelial, blood, their presence is due to rupture of small vessels. 2nd Granular epithelial, consisting of epithelial cells mixed with fibrin. 3rd Hyaline fibrinous may be formed in the lumina when the epithelium is present or when removed. These 3 occur in the 1st Stage. 4th Fatty. These occur only in the 2nd + 3rd Stages never in the 1st Stage.

The Hypersecretion
in convalescence is due to the thinning of the blood from the Retention of Water during the preceding interruption of excretion.

Dropping
occurs in 2 forms: Adenorrheus
into serous cavities of the latter is always preceded by the former. Its specific gravity is low, with salts in large quantity & albumen. Small Schmitt quoted by Dr. Grainger Stewart found most albumen in pleural, lesser peritoneal, less in cranial & still less in subcutaneous cellular tissue.

Lehmann shows that the slower the circulation is in the capillaries, the richer in albumen is the effusion, the old dropsies the albumen becomes greater owing to reabsorption of water & salts.

Causes of dropsy. 1. Deficiency of albumen in the blood serum. 2. Now elimination of water by the kidneys & increased blood pressure in the walls of the systemic capillaries & veins. 3. Paralysis of the cutaneous vessels, a result of the cold which leads to the renal affection may be the cause of the dropsy being coincident with the renal affection in scarlatina.
Bartels doubts this latter explanation, for the following reasons. The adenomatous parts do not exhibit the slightest trace of that redness which must necessarily accompany paralysis of the cutaneous vessels in consequence of the accumulation of blood in them due to the diminished resistance presented by their walls; on the contrary, the skin of the swollen part is often remarkably pale. In every case of dropsy after Scarlet Fever which he observed, the edema was preceded by complete suppression or abnormal diminution of Urine. Albunmous always appeared very shortly. If due to cutaneous Hypertension, it ought to occur also in other congested states of the Skin in addition to Scarlatina, such as Erysipelas, Small-Child T. A correspondence would exist between the severity of the Scarlatinal rash and the probable severity of the dropsy. The dropsy is dangerous to life chiefly
in consequence of 1st The Mechanical disturbance to Respiration especially in the Thoracic Cavity 2nd or adenomatous infiltration of the pulmonary parenchyma 3rd or edema of the Gthobs.

Vomiting
At the beginning may be due to reflex irritation of the nerves caused by Acute swelling of the Kidneys, later it is Chronic in Character.

Anemia
is due to loss of Albumen and Blood.

A Morbid Tendency

To inflammatory affections exists in patients who have Kidney disease due to the Retention of Excrementitious Matter in the Blood.

Uremia

Christison attributed the suspension of the Cerebral Functions to Granular degeneration of the Kidneys which poisoned the Blood by allowing urea to accumulate in it & impoverished it by robbing it of its colouring matter.
Osborne considered the cause of Uremia to be due to Arachnitis. The theory of accumulation of Urea in the Blood as the cause was disproved by Owen Rees. He observed a case in which one Kidney was absent and the ureter of the other blocked; still the patient remained conscious up to the last moment yet more Urea was found in the blood than in the Urine of any case of Bright's Disease.

Frenich stated that the Urea in the Blood was decomposed into Carbonate of Ammonia by a Specific Ferment. Freitez repaired the deficiency in Frenich's Theory as to the Ferment by stating that the Urea pervaded the whole system, especially the secretions. It accumulated chiefly however in the Intestines, whose secretion decomposed the Urea into Carbonate of Ammonia the result being Ammoniacia.
Jaksch distinguished between ammoniuria and uroamia on clinical grounds but allowed the possibility of Frey's Theory.

Schottin disproved the Ammonia Theory by clinical cases. Shewing ammonia in the breath of pyemic and typhoid patients, & being unable to find any in the breath of 15 uramie patients. But he found in one case the proportion of albumen to extractives to stand as 100: 40 in the blood serum instead of 100: 5 he attributed uroamia to 1st an arrest of tissue change. 2nd. A disturbance of endosmotic & exosmotic processes which should occur between the blood & the tissues. 3rd. Diminution of the oxidizing processes of the blood.

Oppler arrived at similar results & found an enormous increase of extractives in the blood & Kreatin & Leucin in the muscles. This being due to 1st Retention in the system owing to interrupted function of the
Kidneys. 2nd Decomposition set up in various organs on account of the altered composition of the blood. Petroff supported the Ammonia Theory, Zahnke, Kühne & Stranze opposed the ammonia whereas—Speigelberg produced symptoms exactly similar to Uraemia by injecting Carbonate of Ammonia. Traube points out that the blood serum being impoverished in Bright's disease tends to transude & in consequence Hypertrophy of the Heart, the Arterial Blood Pressure is increased, so that when this Blood Pressure is increased still further, or the serum still more diminished in density—Serous fluid transudes through the small Arteries & Arterioles of the Brain resorts, compressing the Capillaries & Veins & rendering the Brain anemic. If the cerebrum alone is involved then coma appears. If Pons & Medulla alone then Convulsions are apt
to occur, if both are affected together then
comatose convulsions will be present.
Murchison obtained confirmatory results
by experiment. He produced uræmia by
tying the Inguinal Veins and Veters and
shortly afterwards injected water. Y again
he prevented this from occurring when by
tying the Carotid He prevented the ex-
cess of Blood Pressure on the Brain. In
one of my Patient’s Case It the convulsions
were decidedly mitigated by Compress-
ion of the Carotids.
Rommeleare criticised all the above
theories & found them wanting. He con-
cludes that the Suppression of the Urinary
Secretion prevents the further elaboration of
Albumenoid Substances throughout the en-
teric organisms. Urea is the last stage of
these Metamorphoses & when Urea
accumulates in the Blood it changes
the character of that fluid & conse-
quently of Vital Processes in different
parts of the body. The entire work
of Transforming the Albumenoid Sub-
stances is arrested so that we have to
deal with the Retention in the System not only of Urea but also of Nitrogenous
substances in all the different stages
of oxidation through which they
pass within the organism.
Voit considers that it is not one ele-
ment alone which does harm such as Urea,
Uric Acid, Kreatin, Kreatinin Extractives
or Urochrome but the mass together.
Dr. Grainger Stewart considers that some
forms of Uricemia may be associated
with structural changes in the Brain
similar to those which occur in Ab-
undinaric Retinitis.

Deductions
1. Bartels states that the overloading
of the Blood with Urea is certainly
not in every case the cause of Urema-
ic Symptoms: also-
2. Irensen's Theory can only be the correct
one for, at most, a few cases of Uremia.
3. The Symptoms are all caused by some
 disorders of the Urinary Secretion +
that the title of Uremia is rightly attached to them
4. It is not every case of Uremia that starts convulsions, coma.
Treatment

Must be directed towards the accomplishing of 3 results viz.
1. To subdue the inflammation
2. To remove the products of inflammation from the tubules
3. To obviate the results of Retention of Excremental Lime Matter in the Blood

For the 1st indication Lexus an hot dry currying of the limbs, Poltices and hot fomentations, counterirritants especially in the latter stages as Croton oil, Iodine, Mustard, never Turpentine or Gantharides.

For 2nd give patient plenty water. Mixed to drink also nourishing drastics such as Digitalis in the form of Infusion, Tincture or Pill with Ammon carb & Searl.

Dr. Grainger Stewart remarks that as Digitalis increases the power of the heart’s action, it perhaps also contracts the capillaries; it naturally increases the Blood pressure. As the normal secretion of urine depends upon that pressure being in a healthy state unimpaired by any obstruction; the diminished flow in this direction is due to obstruction within the tubules; the Digitalis appears to supply such an increase of pressure as overcomes the obstruction & carries it away by the force of the current it originates.
1) Less extreme tendency to Anuria.
2) Large proportion of blood, débris, casts, epithelium.
3) Less tendency to Suppuration coming on suddenly.
Digitalis should be used alone at the beginning, and
Squill and Pot. Acet. later. In cases of sudden suppression
before diuretics can act, act upon the skin by
Pilocarpine 1/6 grain subcutaneously. This is a
rule unanswerable. In the cases in which I used it however the
patient seems to have been too deep in
collapse for the System to respond.
Purge patients by Epsom Oil or
Pulvis Salis to be 60 grs. or Elaterrium's to ½ grain.

used beneficially, and compound diuretics which
are recommended to be frequently changed
as Pot. Pottard, or Demissa.

2 grs. thrice daily

Gallie Acid - Ergot and Belladonna
may be tried.

Sys. Ferr. Oto.

Vomiting - Bismuth. Iod. Acid.
Hydrocyanic. Counterirritation.

Diagnosis of Glomerulonephritis from Tubular nephritis.

In Tubular there is,
Olivier's Bright's Disease

CASE VI. Clark Buchanan aged 38, Postmortem.

I was called in one evening to see this patient who had been suddenly taken ill. I found him lying in bed in a comatose state, pupils widely dilated & insensitive to light. There was great dyspnoea & surface of body was cold. The Thermometer showed no rise. Pulse 130.

Percussion Note of Chest impaired all over anteriorly, posteriorly & laterally especially at the base. Râles & respirations very coarse. I heard all over chest anteriorly & posteriorly Tubular breathing posteriorly.

From time to time slight convulsive attacks would seize the patient but were far from severe. There was also occasional vomiting of watery fluid. The Bowers moved spontaneously during a Convulsion. The Catheter was introduced & 100 cc. of Urine were drawn off. It was perfectly clear, exhibited no trace of Blood but had 3% Albumen, Sp. gr. 1015.
Progress of Treatment. Croton oil was applied to the back of the tongue & in one hour produced free purgation also to back of neck & loins; warm bottles were applied to feet & sides with clothes wrung out in hot water. Inf. Digitalis 1/4 gr Pilocarpine was injected subcutaneously but failed to cause diaphoresis & patient died in 2 hours.

History. Patient was a Posthumous frequently for the last 12 years was found asleep in his cart. He often complained of weakness in the loins & as a rule rose 5 times nightly for micturition. His father died suddenly with much the same symptoms. Transient attacks of giddiness & loss of sight occurred frequently with sudden shooting pains in the head. Patient always complained of a bad stomach & general dilution. He was far from being a strong man; his heart as far as I could make out was hypertrophiéd & the Radial & Temporal Arteries atheromatous.
This seems to have been a clear case of cirrhotic Bright's disease lasting about 5 years with a hereditary history as was seen also in the next case who is his brother.

Case VII David Buchanan, Salmon Fisher aged 56

In June 1883 I was sent for to see this patient who had fallen down in the street in a fit. I found patient in bed on his back conscious. When out walking he had been suddenly seized with vertigo & a sharp lightning pain in the head causing him to fall. He seems to have regained consciousness with the shock & complained now only of dull aching pains all over the head & nothing more.

Family History. Father seems to have died from uraemia in the same manner suddenly as his brother (Mr. Antea). Mother still alive aged 90. Patient was intemperate in early life, but for the last 10 years has been a total abstainer.
State on Examination. Patient is of firm and well-developed. Complexion is greyish and prematurely aged. Hair of head, face grey. Attitude one of repose. Pulse 120 Respiration 25.


Circulatory System. For the last 2 years he had experienced considerable uneasiness in the precordial Region with palpitation, especially during the least exertion. Dyspnea came in very early, after these symptoms were noticed and becomes apparent after prolonged conversation or walking up a moderate incline. He suffered also during that time from occasional attacks of faintness.
when walking. Upon inspection there is decided fullness in the precordial region & well marked bulging over the situation of the apex. The apex beat is felt lower than usual & ¾ in to left of middle line. The region of visible impulse is decidedly enlarged & is bounding & heaving in character. Percussion also shows that there is decided enlargement of the dull area downward & to the left. The left Ventricle is clearly the seat of Hypertrophy which appears to have been caused thus. The Kidneys having failed to perform their functions properly the blood has become very impure from non elimination of excrementitious matter. This irritates & causes contraction of the coats of the Capillaries. The circulation is therefore impeded & to overcome this the left Ventricle in course becomes hypertrophied.

Upon auscultation I found, Rhythm regular, sounds intensified & of a loud
bimming character in all the Areas. There is heard in the Aortic Area a double aortic maximum systolic & diastolic. The Aorta has become dilated owing to the increased tension & cardiac hypertrophy causing valvular incompetence, but at the same time the systolic maximum seems due to an old lesion in the lumen at one point. The Tricuspid & Pulmonary Areas are normal. In the Mitral Area there was a suspicion of a systolic & Mitral maximum though not well marked. There is pulsation visible in the Carotids & Temporal Artery, the latter being decidedly tonus & dilated. The Radial pulse is generally 100 in the morning & 110 at night. It has a cord-like feel, is regular, hard & tense: also bounding and rapid, but does not collapse readily owing to Atheroma.

Respiratory System. 25 per minute, regular & abdomino-thoracic. There is no pain unless on increase of dyspnea. Patient has had a chronic cough with
This Apoplexy in Bright's disease may be due to
1) Heart Hyper trophy and greater tension in Arterial System
2) Degenerated Vessels
3) Morbid condition of the blood.
The Transient unconsciousness is either a Syncope or an Epilepsy without convulsions.
grotty expectoration for 2 years or so.
Palpation, Percussion & Auscultation
are all normal except that the
breathing is rather rough & occasional
crepitations are heard at different
parts of the surface.
Reproductive System: Normal
Nervous System: The cause of the
fall which drew attention to this
case seems to have been the Cardiac
Hypertrophy on the one side, & the brittle
& Atherosomatous Capillaries of the Brain
on the other, resulting in rupture &
effusion from some small vessel in
fact an Apoplexy. *

Patient has been much troubled with
headache in the occipital & frontal
regions for about 2 years—Accompa-
nied by transient attacks of Vertigo.
This seems to be due in his case to accu-
mulation of excrementitious matter
in the blood & not to Anaemia. The
motor functions are normal and
the Tendon reflexes act also, though a
little slowly. All the special senses are
normal except the eye. Patient noticed fully 2 years ago, simultaneously with the headaches, that his eye sight was failing. Now he has difficulty in recognizing faces in the street & in reading holds the type close to the eyes.

Upon ophthalmicoscopic Examination I find a white deposit occupying the fundus in both eyes & the optic disc appears somewhat atrophied. The vessels of the Retina are diminished in size. The dimness of vision seems to be due to fatty degeneration of the Retina in the neighbourhood of the Optic Nerve. This fatty degeneration would be probably preceded by congestion & Rupture of the Retinal Vessels.

Integumentary System. Patient has had considerable discomfort from the dryness of the skin for many months. It seems dry & shrivelled with very little subcutaneous fat. No adena at any part of the surface.

Locomotoriy System. Normal
Urinary System: Patient noticed about 2 years ago at which date most of the prominent symptoms became apparent that at a rule he rose twice every night for micturition & that the quantity passed was large & that since then he had noticed the quantity of urine to continue. At present it is never less than 100 ozs in 24 hours & appears very pale. There is about 1/4 Albumen present. Sp. gr. 1009. After standing for a very scanty deposit is thrown down & after prolonged search a few granular & hylaline tube casts were found.

Diagnosis: Cirrhotic Bright's Disease of the Kidneys advanced.

Treatment and Progress: When called in after the Apoplexy I ordered a mustard application to the back of the neck & a drop oferatol oil was administered by mouth. The violence of the headache was mitigated by the application & free purging soon ensued & patient passed a good night.
Next day a mixture of 10 grains of Pot. Boro
& 5 grs Pot. Soda was prescribed & continued for
some time.

Patient was kept in bed for one week
& then was permitted outdoor exercise
daily. His diet was carefully regulated
consisting of Sweet & Skimmed Milk
with Lime Water & also Beef Broth. The
Gastric Symptoms were very much re-
lieved by a Powder given twice daily
before Meals

Rhei. grs V

Bismuth. grs VIII

Pot. Bicarp. grs VI

Pulv. Aromat. grs II

Patient was soon able for a change
accordingly went to the Highands for
2 months.

Sept. 1883 He came back very much improved.
The headaches had almost entirely ceased.
The Dimness of vision still continued, the
average frequency of Micturition was still
twice as night while the Thirst exhibited
no decrease. His appetite had much im-

proved & he was now able to discontinue
the powders & resume ordinary diet. The
urine was found to be 112 ozs in 24 hours, &
Sp. grav 1008 with ½ Albumen. Tube Balsam
were not found. The pulse averaged 100.
The dyspnea was not improved but
occasional no great inconvenience if
patient remained quiet.

Patient remained in a fair state of health
until November when he caught an Attack of
Bronchitis which weakened him somewhat,
during that time the urine increased to
120 ozs in 24 hours & the Albumen rose ⅓; the dyspnea
being very distressing. Whenever the headache
threatened the Bronide & Iodide mixture con-
trolled them. The gastric visitation always
yielded to the Rheubarb Combination. About
this time too a Mitral Systolic Murmur
which had been long suspected became
more pronounced indicating Mitral Incom-
petence. By keeping closely to the house all
Winter patient remained tolerably comfort-
able in his health varied by occasional Bron-
chitic Attacks.

In March he had a very severe relapse of
Bronchitis from inadvertently exposing himself to the East Winds that at that time he first noticed his feet and ankles to swell. The Whistling in the Procoledial region became also more pronounced & vomiting of watery fluid was frequent. The Urine now had diminished to 80 ozs at which quantity it remained under the influence of a Pill daily.

Ammon. Carb.

Stib. ca. gr. ii

Pulv. Digital. gr. 1/2

It. pil

Ser dul.

At intervals the Urine would diminish to 40 ozs in 24 hours & shown compensatory diuresis would set in tending to reduce patient still more. The Albumen remained as a rule at 1/3. Patient was generally drowsy all day with a feeling of extreme languor. He spoke very slowly. And the eyesight remained in very much the same condition. Lio. Ferr. Perchlor., Gallia Acid. Ros. amline, Ergot were all tried in succession, but none of them had any permanent effect in reducing the Albumen, casts were still
few & always of lymphatic & granular form. There were no blood casts or corporules. The pulse always varied between 100 & 120. In this state he remained from March to October 1884. Able to walk about & go out occasionally with exacerbations at intervals. The swelling of the feet ankles & legs was now permanent. There was Adema of the eyelids & headache constantly present. Great Sympatetic over the abdomen. The urine was now never more than 30 ozs. The albumen had risen to ½. The Digitalis was pushed further but without permanent effect. Compensation had failed. The Cardiac Murmurs were now double. A Antonie & Double A Antonie. The hearing in the Pracordial area was very marked. Oil of Juniper was inhaled & Spirit of Juniper given internally. Gin also was tried but all with only temporary effect. Soon the urine had reduced to 10 ozs & was loaded with albumen.

A Sloughing sore now formed on the outer side of the knee, by which constant drainage of the leg was effected & the swelling diminished. The urine also
decreased until upon some days none at all was passed, and any that was examined became nearly solid on boiling. Adea of the lungs set in. There was dulness at the base posteriorly & basally. Expiration prolonged. Respiration very hasty. Rales & coarse crepitations were heard all over.

Patient could not lie nor in bed from dyspnoea but spent his whole time in a chair. Liquid food would hardly lie in the stomach. Vomiting was constant. The urine never exceeded 20 oz in 24 hours. It was loaded with albumen. The headache became violent & persistent, tending to exhaust the patient considerably. The sore upon the leg discharged a little daily. The Bowels scarcely ever moved even with enemata. Patient became suddenly comatose & died within 12 hours.

Analysis of Symptoms

The nocturnal frequency of micturition is a most common symptom & apparently depends upon the fact that a more abundant secretion occurs at night than by day. Present in some cases of Polyuria is a genuine Polyuria is
contracting Kidney. It is not a prominent symptom at the very beginning nor does it persist absolutely till the end; in fact for several days before death the secretion may be entirely arrested if compensation be established by Diarrhoea or by some other channel.

The colour of the Urine is pale yellow or a yellowish green & deposits as sediment.

The Specific gravity as a rule remains below normal but depends upon the rapidity with which secretion is being effected.

The Reaction as a rule is weakly Acid. Albumen in the Urine forms one of the characteristic symptoms though by no means constant & it may be absent entirely at intervals. Under all circumstances however the amount of Albumen in Chronic Kidney as a rule is insignificant compared with Acute Inflammatory Bright. In the same individual it is subject to great variations. There ratio exists between the percentage of Albumen & the total quantity of Urine.

The Urine has solid constituents as a rule
are abnormally small the tubules are compressed; the sediment is very slight or wholly absent.

Casts are scarce as a rule are Hyaline-Granular.

Blood as a rule is absent.

Contracting Kidneys, even when the secreting structure has become largely destroyed actually secrete in a given time a larger quantity of urine than healthy Kidneys. This however only occurs so long as the Hypertrophy of the left Ventricle is capable of maintaining the blood pressure at an abnormal height. The greater rapidity with which the secretion of the Urine is conducted is at the same time the cause of its preserving so low a specific gravity i.e. being poor in solid constituents. The Hypertrophy of the left Ventricle is really a compensation for the loss of renal secreting tissue.

Albuminuric as a rule is due to the increase of Blood pressure in the Vascular tufts.

Dropsey is in some cases entirely absent but commonly appears as the disease approaches a fatal termination, then occurs as Dr. Grainger Stewart remarks when
Inflammatory exudation has become superadded to the primary disease but in clinical case III it appeared to be due also to failure of Cardiac Compensation.

**Etiology**

Corroborative Bright's disease happens most frequently during maturity or middle age & occurs in every class of Society. One of its many names viz. Gouty Kidney indicates its frequent coexistence with that Malady. Lead poisoning is said to be another cause. Some Physicians consider that Renal Congestion from Cardiac disease may lead to the disease but Dr. Stewart considers such induction from Cardiac disease analogous rather to Spurious Cirrhosis of the Liver.

Drunkenness is a common cause & both my clinical bases had been most interminable in middle age; but this on the other hand is denied by Dartels.

**Treatment**

Must simply be palliative as we have no method of curing the Renal Affectation. For Gout—plenty of outdoor exercise in moderation.
& avoid excessive mental work. Diet must be
nourishing with plenty vegetables & fair
quantity of animal food. Clarce, Hock
& Brandy are the best forms of Alcohol.
Potash Vitriol Water & Colchicum ○
Plumbism, Iodide of Potassium Sulfuric
Acid.
Renal Affection must be treated with
Diuretics & Diaphoretics on the same principle
as the Inflammatory Form.
Compilations are to be treated individ-
ually & general Tonics such as Nux Vonica
found freely administered.
Eye Affection. Exposure & strong light must
be avoided, also stooping & straining. Blisters
Dry & Wet Cupping may all be beneficial.

Waxy Bright's Disease

Case VIII. Robert Common

Robert Common aged 36, married, plumber
has been suffering from Phtisis Pulmonalis
for 6 years & has lately developed symp-
tom's indicating Waxy Bright's Disease.

Family History. Father died of Phtisis
Mother alive & healthy. He is temperate
in food & drink & is comfortable in his surroundings. One brother has died of Phthisis & 3 children have died in infancy from Bronchitic Attacks. He has suffered from Phthisis for the last 5 years but recently asked advice for troublesome frequent Micturition during the night & oedema of legs & face. He has to rise as often as six times nightly & this exposes him to the risk of cold during Perspiration he has sought advice.

State on Examination. Patient has been well developed but is now very much reduced. Muscles are decidedly soft & flabby. The face is thin & careworn & shows oedema round the eyes & cheeks. Temperament sanguine. Temperature 106. Pulse 90. Respiration 20.

Alimentary System. Teeth in good condition. Tongue furred & coated at the back. Secretions of mouth much diminished. Patient has a fair appetite but suffers from considerable thirst. There is absence of Vomiting. Bowels always constipated. Abdomen very
large & full. Sympathetic well marked with tenderness over the surface. There is no Ascites. The Hepatic dullness extends for 7/2 in. vertically in the right Mammillary line & transversely 2 inches to left of umbilicus, the lower margin feels sharp & hard.

Hematopoietic System: Sympathetic vessels & glands are normal. Absence of stromous enlargement. The area of Spleenic dullness is increased. Upon microscopic examination of the blood, the white corpuscles appear increased in number & the red ones are somewhat at pale.

Circulatory System: There is absence of pain & palpitation. There is certainly dyspnea but not of Cardiac origin. Bradycardia natural. Palpation & Percussion normal. Auscultation reveals a Mitral & Regurgitant Murmur best heard at Apex, but nothing more save Accentuation of the 2nd Sound in the same area.

Respiratory System: Frequency 20 per minute. Cheyne-Stokes Breathing
well marked. Abdominal Thoraic. Patient has had a cough for the last 6 years worse in the morning. Sputum pretty mucopulent at times & I have found fragments of elastic tissue in it. Voice markedly husky & under the laryngoscope exhibits聪明的 ulceration of the larynx. Upon inspection the chest is very much constricted & flat. Supra clavicular area depressed on both sides. Action imperfect & jerky. Percussion flat all over both sides & is most marked at upper part of chest. Below the clavicle on both sides is heard a well marked cracked pot sound upon firm percussion. Vocal Fremitus increased all over. Auscultation. Inspiration wavy & jerky. Expiration prolonged. Breathing is harsh all over. Vocal Resonance is increased. Accompaniments are Rales & coarse crepitations all over. Breathing is murmur as a rule. There are cavities in each side immediately below the clavicle & here the percussion note is Impenetrable. The Breathing Ausprob
with very coarse liquid crepitations.

**Respiratory System.** - No paroxysms of asthma or cough.

**Integumentary System.** - Patient suffers from exhausting night sweats. There is edema of feet ankles legs, also of backs of hands + over the face.

**Reproductive System.** - Normal.

**Urinary System.** - Patient never passes less than 100 ozs in 24 hours. Urination though frequent is painless.

**History.** - Patient passed 100 ozs in 24 hours. The quantity of urine passed bears a direct relation to the quantity of fluid imbibed. After a prolonged search a very few hyaline casts are occasionally found. Albrecht's persistent reaction of urine acid.

Patient very pale.

**Nervous System.** - No headaches. No tendency to convulsions, no eye symptoms. Headache occasional.

**Further History.** - He suffers occasionally from the long affection of the kidneys. At these times the temperature goes up to 101°, the pulse to 120.
but both have been much higher, the feet, hands & face increase in edema & the dyspnea becomes aggravated. The urine has fallen at these times as low as 60 o yrs in 24 hours, but the Albumen is much increased. The Sp기관; has also risen to 1015 & I have observed their granular casts in the urine & also urates. These attacks come on perhaps monthly & last a week. A Subacute Inflammatory addition is probably the cause. Diarrhea is not infrequent at these times & is caused I believe by a syphilitic disease of the intestine. During its continuance the urine falls & inspiration is increased.

In one recent inflammatory attack the edema of the legs & thighs increased enormously & ascites became well marked in the abdomen; & I believe that is a peculiarity of the dropsy in the marcy for instance to be most marked in the legs & abdomen. Treatment has been both dietary & medical
to suit the Pulmonary & Renal affections. Abundance of Codliver Oil & Salt have been given & milk largely consumed. Syr. Ferr. Sod. Jellones Compound Syrup. Blegis mixture have all been persevered in with varying effects. Oil: Iodoform gr. 1. Twice daily had a good effect on the lungs, with external application of Iodine. Oil: Plumb b. opia relieves the Diarrhoea & Perspiration. The gastric catarrh always yields to Rhubarb, Bismuth, Pot Bicarbon. Pulv: Aromat. The usual remedies for Albuminuria have all failed — Iron, Ergot, Belladonna, Rosaniline. 4-

Analysis of Symptoms.
The Urine is always increased except when Inflammatory Symptoms are superadded or when there is Diarrhoea & thirst is a pretty constant concomitant.

Dr Grainger Stewart refers the Polyuria partly to Paralysis & Dilatation of the small Arteries due to the degeneration of the Muscular Fibres partly
to increased permeability of these degenerated walls. This is seen also in the intestine where diarrhea is the result. He also points out that polyuria is always present case when there is diarrhea, inflammation of tubules, or hyaline deposits in the stroma, thrombosis of the renal arteries. Urea as a rule is normal & was some in this case averaging 400 to 500 gms in 24 hours but may be diminished in the latter stages.

The Albinusions is due to the increased permeability of the walls of the vessels allowing water only at first to escape, then Albinusions & maybe blood through pore.

Casts as a rule are hyaline & granular & are not numerous.

The Drapery in this case I consider due to 1) Anemia 2) Inflammatory symptoms superadded occasionally 3) Failure of compensation in the heart as the Mitral Regurgitant Murrnue is very pronounced & digitalis removes it for...
a time. Bartels remarks that the dropsey of amyloid degeneration is not always the result of the retention of water in the Blood in consequence of its defective secretion by the Kidneys. By Roberts the Ascites is believed to be due to disturbance of the Circulation through the Vena Porta, which Amyloid degeneration of the Hepatic vessels & the swelling of the degenerated lymphatic glands about the Portal Vein entail.

Anaemia as a rule is caused by the fundamental Malady & not the Renal Affection. Diarrhoea — may be due to (1) Ulceration (2) Vascular disease of the Vessels permitting transinduration (3) Stasis of the Aqueous Blood in the portal Circulation due to the degeneration of the Hepatic Vessels. Cardiac Hypertrophy extremely rare. Urania rare.

The termination depends more upon the fundamental Malady & Simultaneous Vascular Disease of other organs than on the Renal Affection.

Diagnosis depends on Polyuria early.
Albuminuria; Absence of Drusey; History & Complications & Appearance of Patient.

Causes: Syphilis, Cancers, Exhauiting Suppurations, Phthisis very common, but there may be no apparent cause for Waxy or Cirrhotic.
Upon various Bright's Diseases according to Dr. Grainger Stewart

Inflammatory may occur at any age infants or old men.
Cirrhotic after middle life as a rule though may occur at all times.
Waxy at any time

Diagnosis

Inflammatory sudden with dropsy, diminution of Urine + Fever.
Cirrhotic Insidious, Absence of Symptoms, till a sudden Urimia or diminu

Waxy insidious, polynomial history of concomitant disease.

Urine

Inflammatory 1st Stage - diminished.
2nd - diminished or normal. 3rd - diminished natural, or increased
Cirrhotic - May be normal, increased at the end.
Waxy - Early Polyuria.

Colour

Inflammatory, various shades of dark.
Waxy + Cirrhotic. Pale
Albumen
Inflammatory. Conscious
Waxy + Cirrhotic. Much less conscious or may be absent.

**Density**
Specific gravity lower in the chronic forms than the acute. Varies with the quantity of urine.

**Urine Baskets & Deposits**
Blood: Commonest in inflammatory, but may occur in any of the forms. Urine baskets are of little value in diagnosing one Bright's Disease from another; of great value in diagnosing the disease generally. Any form of cast may occur in any form of the disease; they may all occur simultaneously.

**Dropsy**
Indicates inflammation of the tubules commonest in purely inflammatory or slight in purely waxy or cirrhotic forms.

**Complications**
Waxy. Large waxy liver. Waxy degeneration; slight increase of white corpuscles; pale, flabby condition of red corpuscles
Diphtheritic Neuro-retinitis & Cardiac Hypertrophy

Prognosis

Inflammatory 1st Stage. Hopeful but most immediately dangerous. 2nd. Far from hopeless. 3rd. No chance of recovery.

Diphtheritic. Absolutely hopeless.

Waxy. Recovery rare but possible if coexistent disease be removed.

Signs of Immediate Danger

1. When urine falls low or is suppressed.
2. Droop persistently steadily increasing.
3. Uremic Symptoms.
4. Acute Inflammations as Pneumonia, Pericarditis
5. Ecce Symptoms marked.
6. Hemorrhages from nose & headache.