Albuminuria.
Its causes, Pathology, & Treatment.

An Inaugural Dissertation.
presented to

The Medical Faculty, of the University
Edinburgh.

by,

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for the Degree of

Doctor of Medicine
# Table of Contents

## Part First.

### Introduction.

<table>
<thead>
<tr>
<th>Case</th>
<th>Name</th>
<th>Subject considered</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Jossie Douglas</td>
<td>The absence of cholera in dacea. Temp. about 4</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>Mary Davidson</td>
<td>Acute leq. Nephritis. Rhaena. Bronchitis</td>
<td>14</td>
</tr>
<tr>
<td>III</td>
<td>Isabella H'grog</td>
<td>Nephritis becoming Sternosis. Habit 20</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>Pho. Burns</td>
<td>Phthisis &amp; Sternosis.</td>
<td>24</td>
</tr>
<tr>
<td>V</td>
<td>Thomas Miller</td>
<td>The colour of albumen. Sternosis + Brol 35</td>
<td></td>
</tr>
<tr>
<td>V1</td>
<td>Margaret Keith</td>
<td>Scarletina and Albuminuria.</td>
<td>41</td>
</tr>
<tr>
<td>VII</td>
<td>John Handyside</td>
<td>Glee. Sternosis. Phthisis.</td>
<td>50</td>
</tr>
<tr>
<td>VIII</td>
<td>David Laing</td>
<td>Albuminuria after fever.</td>
<td>54</td>
</tr>
<tr>
<td>IX</td>
<td>John Richardson</td>
<td>Haematuria.</td>
<td>61</td>
</tr>
<tr>
<td>X</td>
<td>Andrew Graham</td>
<td>Cystitis.</td>
<td>69</td>
</tr>
<tr>
<td>XI</td>
<td>Anne Robertson</td>
<td>Cystoplas. Arrested Catarrhia.</td>
<td>76</td>
</tr>
</tbody>
</table>

## Part Second.

- Chap. I. Conclusions deduced from cases in Part I. 82
  - Value of albuminous urine as a diagnostic sign.
  - Sources of the albumen.
- Chap. II. Functional Renal Albuminuria. 86
Table of Contents

Part Second

Chapter II. The time of its occurrence, and the mode, explained...

Effects of irritants on the kidneys...

Effects of Mercury...

Chapter III. Desquamative Nephritis, defined...

Known the an inflammation...

Character of tube casts...

Case of acute Nephritis (fatal)...

Post mortem appearance of kidney...

Histological appearances...

Symptoms of the acute disease...

Symptoms of the chronic disease...

Complications...

Causes...

Treatment...

Chapter IV. Stenosis, defined. Showing the non-inflammatory...

Inflammatory...

Intratubular appearances of the kidney...

Causes...

Course of complications...
Table of Contents

Chap. IV Treatment of Sterosis  146
Conclusions  187
Introductory.

To the title page of this essay, we have prefixed the name, "Albuminuria." The term is employed merely to indicate an albuminous impregnation of the urine, without reference to the source of it; the object of the following pages is to show the various origins of such a morbid state. For the better illustrating of the subject, the paper has been divided into 2 Parts.

The first consists of a series of cases, each of which presents a congealable or albuminous state of the urine, but differs in other respects, as much as possible. From having had a limited number of cases to select from, they sometimes approach nearer than is desirable. The cases, with 2 exceptions, have been observed, in wards I. and II. of the Royal Infirmary, during the last winter. One during the same period in Dr. Burnes' wards, whilst the remaining one was treated, in the Perth Infirmary, in the spring of 1853. All of them have been per...
quently examined by the writer, I am intended to show, some of the causes of albumen, in the urine.

It will be observed that the distinction of "temporary" and "persistent" albuminuria, although recognized, has not been dwelt on, in the following pages. This distinction, though generally correct, does not always hold good. In many cases, in this dissertation, it was considered unnecessary.

In the second part, will be found the conclusions, deduced from the cases detailed, in Part 1st. A few remarks on a temporary excretion of albumen by the kidney and on the inflammatory, non-inflammatory, forms of Bright's disease.

With regard to the latter, it may be remarked, that borrowing the idea from Dr. Rees, the term "Postis Brightii" has been adopted, as a generic name, the species of which forms are, the inflammatory and non-inflammatory affections.

Knowing & feeling the imperfection of...
This dissertation, it is with feelings of diffidence, that the writer submits it to the criticism of the Medical Faculty of the University of Edinburgh, not relying on their forbearance, but such as it is, presented.
Case 1

Jessie Douglas.

A Miscarriage long (extending over several months) to detail minutely. A general summary of it will be given, as it is intended to illustrate the occurrence of Junctional albuminuria. The urinary symptoms only will be dwelt on.

The patient it appears was never indoors, previoulsy to admission. Had suffered frequently from attacks of rheumatic fever. After exposure on the 9th she was again attacked.

She suffered from palpitation, shortness of breath, and hemoptysis which she had been subject, but had no pain in chest. She was admitted on the 19th suffering from acute rheumatism palpation, Peri-Endo-carditis. She improved formerly until the 18th when she was attacked by pneumonia on left side. Rebec 1st a pectoral sound was audible, at base of same back.

On the 25th for the 1st time since her admission the presence of chlorides was faintly indicated. On the
On the 3rd Dec. the back was resonant, but on the 6th the chills were abundant. Sudden ex- 
tension from angle of right Scapula to Base. The breathing was bronchial, expectoration 
profuse. 1st physician was heard. 2nd from 2nd. On the 8th the chills were still abundant. On the 9th 
1st physician was heard. Respiration inaudible. After this the pul- 
monary symptoms subsided. At the 13th 2nd physician was 
heard on left than right side. On the 22nd, left side, was comparatively duller than right. At 
this date, the continued daily Veratrum, & mum- 
num was audible at base of head, with 2nd sounds. 
She had occasional palpitation. Was dismissed 
on Feb 17th 1856. Was readmitted on 
Feb 29th, with an attack of acute Rheumatism. 
The face, knees, right arm were affected. On 
March 2nd Pleurisy at right base side present. 
its symptoms more. On the 3rd the urine contained albumin. 
Chlorides rather deficient. A slight amount of 
albumen was present. On the 5th the urine was 
clear, but albumen still present. Pleuritis begun to yield. 
Bronchitis by rule anticytically. 1st urine 
of faint character. On the 12th faeces not cop- 
ulate
coagulate. At the end of April she was still a patient in the Infirmary. The complaints of palpitation, cardiac action, hematuria, distinct fœeticic urina with 2nd sound. Pulse, full and jerking. Respiratory system normal, urine, also natural. No return of albumen.

Remarks on the case.

Were we to enter into a consideration of the details of the circulatory and respiratory system of this extremely interesting case, too much of our limited space would be required, our remarks will therefore only be directed to the characters possessed by the urine, at different periods. The points selected are the absence or deficiency of the chlorides, & the temporary presence of albumen, as indicated by a coagulum, forming, of albumin, when the fluid was heated with nitric acid; added.

1st. with regard to the absence or deficiency of chlorides in disease.

The disease, in which they have most frequently been observed to absent, is pneumon
Pneumonia. Dr. Bennett mentions that he found it to be absent in cases of Small-pox, in one of Peritonitis, in one of Phthisis, with intercurrent Pneumonia.

We have also observed their absence or deficiency, in 3 cases at least, of continued fever, in which no Pulmonary nor other complication was present. In one Exspiratory, in 1 Acute Rheumatism, in one case of Sclelatina, accompanied by severe voice throat from an early period of the disease, suffocation taking place about the angle (right) of jaw.

From our own observations and those of others made in Surgical cases, their absence or deficiency has not occurred, but the examination we have had opportunities to make, have not been satisfactory. In a case said by excellent authority to be Pneumonia, but which, at the same time, laboured under Pleurisy, Bronchitis, no deficiency of Chlorides was noted, although diligently looked for. The case under consideration contained no chlorides in the urine when submitted, then suffering from Rheumatism & Pericardial effusion, & Indo-carditis.
Edinburgh 1856.
Their absence or deficiency, from the above cases, will be seen to occur, in other diseases besides Pneumonia. Dr. Bennett remarks, "The absence of chlorides marked precisely the onward march of the Pneumonia. Whilst their presence indicated its cessation." In Pneumonia, such appears to be the fact, but in those cases where they are deficient when no exudation has taken place, (i.e., in fevers) this coincidence cannot be observed. It has also been said that the chlorides soon with the exudation. I have frequently observed that chlorides are not excreted in the urine, but the above observation in fevers would cast doubt upon this view. Again it has been supposed, that their absence might be accounted for by the character of the diet of the patient.

An interesting observation was made on this point during last winter. A man named Fraser was suffering from epistaxis and of rhinopharynx. For 10 days before he died, the absence of chlorides was noticed from the urine. He was then supported by wine, milk, and, finally, the latter in small quantity by the mouth.
by beef tea injection. The horse when questioned, said no\footnote{1}\footnote{2} said no salt was put into the beef tea, yet the day before he died, the chlorides began to appear in the urine. Knowing that although the quantity of chloride of sodium introduced into the system, was not increased, it is likely that some period they reappear. After death it was found that the lung had been burned and had become pungent.

Connected with the phenomenon the following points will be generally allowed:

1. That the chlorides are observed to be absent in diseases characterized by fibrillar reaction of an inflammatory nature generally.

2. That they are most frequently absent in purulent inflammations but seldom in plastic.

Can this latter fact afford no explanation of their absence? It is natural for an evaporation of liquor laqueus to occur spontaneously, but when the protective process is allowed to be carried on a more or less consolidated, causing the 2 layers of membrane to adhere. For the latter change the fluid is used.
wanted to be in a plastic state, but for the former, no such plasticity is required. In the one case, it is necessary, in the other it does not seem to be so. To me it be that Nature's intention in retaining the Chloride in the System, is, that by the effect of the accumulating salt, the state of the fluid may be so modified that the exuded fluid, or gum, is rendered unfit for plastic changes?

We know from experiment, that the effect of Salines, when added in certain amount to the fluid, is to make it more fluid. Is this what Nature does?

In observations, made during the healing of a stump, the deficiency of Chloride in the urine was detected. A plastic inflammation was here required. This agrees with the state of the urine in inflammations on blemished surfaces, which, as we have above stated, are plastic, generally accompanied by the normal amount of Chloride in the normal secretion.

What the Modus operandi of the retained Chloride of Sodium, is, cannot yet be certainly stated. But not only, does it appear to have an
an effect on the circulating fluid, but it also directly has a local action. Too, for instance, Beule ascertained, that in Brennmania, a large quantity of the salt is present in the urine. Probably it is intended to modify the exudation to assist in preventing its passage into a plastic state, for although adherent between the Pleuræ is most incompatible with tolerable health, as evinced by the numbers who at death are found to have such a state of parts, without having suffered much inconvenience. While the consolidation of albumo-toluidin cannot continue, without causing great distress to the patient.

Or it may be, that not only does the salt by rendering the fluid aplectic, but it also effects some modification in the exudation, on mucous surfaces, by which it prevents the formation of pus. And it may be, that in those exceptional cases, i.e. in acute inflammations, where the salt is deficient in the urine, there has been a tendency to the formation of puru. - That the chlorides,
Tran sle. Ind. Chirurg. Society. London
Chlorides were retained, precipitate this? But nine observations are wanted, it appears, but, it is from surgical cases. That the required information is to be derived.

The foregoing observations may be thus shortly summed up. The action of Chloride of Iodine, when retained in the Respiration, appears both to the general as local.

1. In the Blood, which it renders otanic. 2. In the Exudation. 3. Prevent it under going the Infusoria changes—

They are not also from the absence of the salt. Fairly deduce the roundness of the Colonic treatment of Inflammation? For it is only following the indications of Nature aiding her efforts.

The next point in our consideration of the case, to which attention is directed is the Presence of albumen in the Urine. It is evidently due to a functional change in the Kidney. It is worth
worthy of observation that it was after the organ had been incomparably vicarious, a state followed by the continued excretion of a large amount of urine, that, the Albuminuric impregnation took place; but as this is a subject which will be treated of separately afterwards, our remarks are for the present deferred.
Case II

Margaret Davidson.

Admitted January 6th 1856.

History. First attack of Dyspepsia, enjoyed good health till Dec. 27th. On that day, after washing, he felt a slight headache, pains in the upper abdomen, breathlessness, cough appeared, expectoration increased. On the 19th of the same month, a catarrhal meningitis was noticed which became arrested. The man had a fit of delirium on the 21st. The belly was swollen. On Jan. 2nd, had blisters on chest. Has kept bed since.


Potassium biurete 89. Potassium nitrate 11 in one. Jan 14th urine slightly coagulated, a few pale brown casts, with some pus and our epithelium. 17th redness quite disappeared. casts as on 14th no pus. 29th urine coagulation, no tube casts, disorder only. Tubercle disease cured.

Remarks on the Case.

From the consideration of the above case we conclude that the patient had slight pneumonia, laboured under an acute desquamation inflammation of the kidney. That the attack was acute, we are satisfied from plane view of the history. 

Statement
Statement by the symptoms, course of the disease. That it is an inflammation, we are led to believe from the general symptoms & the characters of the tube casts, seen under the microscope.

The symptoms & course of the kidney disease are well marked. The febrile reaction, the spastic tenderness, pain, the scanty urine, the soon following edema, all point to the kidney as the seat of inflammation.

But why should she have been affected by an inflammatory affection of the urinary system? Independently of the circumstance that all have come under more or less obvious evidence of inflammation than any other.

The following reasons present themselves which may be thus stated. The patient had been suffering from an attack although not acute, of bronchitis. After being exposed & fatigued more than usual, the cutaneous excretion was arrested. She was chilled. The first signs from the surface was determined towards the lung. The bronchitic attack becomes increased in severity. But the chest...
checked cutaneous excretion has yet. The clinical state of the lung prevents that organ assuming a vicarious action. In the kidney, as assisting to the skin, the blood is determined edema—congestion of the former follows. In the state of the lung obliterates the venous circulation, the kidney unable resist the first steps of the inflammatory process, at last, becomes the seat of an acute inflammation.

How are the numerous secreting cells from the kidney present in the deposit, be accounted for? Are they thrown off in eliminating a poison from the system? If this we answer no for the activity of the kidney is less than usual, were it so engaged, we would expect to find a more active, even the amount of water excreted is smaller than in health. It appears probable, that the desiccation of the cells is a result of the inflammatory action, so similar to phenomena observed on other mucous membranes.

Pneumonia, is perhaps the first common concurrent disease that along with acute desquamative rheumatism. It ap
appears generally to precede the cerebral lesion. In the occurrence of the latter, many probably be explained, as we have attempted to do above.

The pulmonary affection, does not differ from the characters presented by the disease at other times. Nor does it possess the objectional disposition, so generally observed from regimen with the chronic forms of neural disease, the reason being, that the blood is not in the same morbid condition as it is found in the latter class.

Adema, was an early complication of the case they began in the dependent parts of the body, more extensive and severe cavities soon after followed. The explanation of the symptom of ademas to exist in this. But not only was the circulating fluid denuded, watery and relative to the capillary walls interfered with by the loss of albumen, but that the retained urinary excretion i.e. urea, acted as an irritant, in the cellular tissues, surfaces, excised the passage from the vessels, of the venous of the blood into the interstices of the former, the cavities of the latter tissue. In such a state of mut
matter, as would naturally be expected, the effusion presented itself first at those parts of the system furthest removed from the central organ of the circulation, where the latter may be presumed to be keepest, & where the physical effects of the gravity of the fluid would be most severely experienced. The natural relation between the circulating fluid & the tissues being impaired, we cannot wonder that the effects should have been most apparent in the lower extremities.

The case progressed favorably. The albumen in the urine steadily & daily decreasing, returning no tendency to relapse. The other symptoms abated, she was diminished and cured.

In such a case it is of essential importance that the patient take great care neither to expose herself to variations of temperature nor to exceed either in food or stimulating liquors, the great object of after practice being, to prevent the case from relapsing again & afterwards deteriorating as is illustrated in the case which next directs our attention.
Case 117

Isabella Mac Gregor.


History. The Patient states she had a cold rheumatic in last winter was better during summer & continued so till 6 weeks ago. At that period after washing, she had a rise, swelling, bulness of face, anorexia, thirst, hot skin, pain in knee, hip, joints swollen confined bed for 3 days. Fed by Pt.Jetbette assumed work. Complained of pain & palpitation in cardiac region. Suspended all work have continued since 4 weeks ago pain in joints, urine, quantity 9 red. - Observed her feet, legs swollen. 2 weeks ago cough returned.

To the Student of "Morbus Brightii." The above is a case of extreme interest. For in it are presented the characteristics of the inflammatory, ulcerative varieties of that disease.

From the history of the patient, we have evidence of the invasion of an acute inflammatory
Inflammatory attacks. It seems that treatment passes through chronic from gradually becoming more chronic. The two latter stages are indicated by the characters of the tube casts. Could the course of renal stenosis be always as clearly traced? Many such cases would be met with. It appears to be the natural course of the disease, if it be not arrested during the acute inflammatory stage, and shows the importance of attention during the convalescence of the patient, from the acute nephritis.

Another point of interest is the coincidence of a cardiac, as well as a renal lesion. Did the cardiac occur in the renal disorder? Evidently not, for the one was complained of as soon as the other. More probably the cause of both is to be looked for in the constitution of the patient. The rheumatic diathesis is doubtless predisposed, the exposure antique she was subjected to, whilst washing, would likely excite the cardiac, as well as the renal lesion.

The prognosis in such a case is
evidently unfavorable, the longer the continuance, the less amenable, would it prove to treat ment. For the more chronic the disease the more morbid does the circulating fluid be come. Our treatment should be directed towards improving the blood by such nourishing food as the patient can most easily digest & assimilate.
Case IV

Mr. Burns.


History. The patient is the wife of an Irish labourer. She has not been able ordinarily. Her care was neglected. She frequently exposed to cold and damp. She always been sickly. 6 years ago had continued fever. Made a poor recovery. The next year had another febrile attack, less severe. 2 years ago had acute Rheumation. After a few weeks' treatment left the Infirmary "by desire." She began to notice a cough, expectoration, which had continued with renal exacerbations till now. 4 years ago had another attack of Rheumation. 6 months ago first noticed her urine muddy. Since then, it is occasionally bloody. At times she can remember having seen during night to urinate. No pain in making water. Her loins, during last 6 months, bladder has become much enlarged. Enlarging in past 2 years. 3 weeks ago all her symptoms became aggravated. Her legs then began to swell. Oedema has mounted from feet and ankles.
On admission. Complains of frequent cough.
Expectoration mucous mucus sputum prevalent.
Respirations 21 in minute. Sputum black pustules
found at night after rest of lungs remain.
General diffused dulness over anterior surface of
left lung. Cavusus respiration over upper half
right lung. Rales over sputum heard over whole lung.
also heard on left. Local resonance increased
on left side. Pectoriloquy at right after
Cardiac sounds weak. Pulse 104 weak, thin,
jetting. Tongue, Purplish red at edges. Pain
in throat, dysphagia, throat spaces increased.
Anxiety. Epigastric tenderness. Acute, con
considerable fluctuation. Fomites frequently height
No pain in biceps. Urine moderately
quantity. Pulse Tuesday 17th, 10.45. Acid
considerable amount of albumen - becoming yellow
numerous praeclaria, opurinous, tube casts. Epithelial
at scales, all showing jelly deposit.

The diarrhoea alternating many drugs were employed with not relief. Mix
tinct. & doses Powder or Opium, were the most
apparitions. The urinary symptoms presented little
variety. Iodine bismuth was frequently applied to the face.

She
She gradually became weaker, and on the last day or 2 of her life, suffered from low delirium. She died on June 18th, 7 A.M.

At the Post Mortem Examination, the heart was found to be adherent to the pericardium. The thorax was opened through both lungs. The lungs and bronchi existed at both sides, lungs adherent to pleurae. The right lung shows healthy, almost intact pleurae. The left lung healthy. A few healthy, Peritoneum thoracis healthy. 3 joints of fluid in abdomen. Viscera, + enlarged. Oesophagus distended by white granular degeneration. The peritoneum, membrane of some tubo, was thickened or denuded of epithelium. Other were fatty contained none or less epithelium. Some of the latter were filled with fatty granular matter. When the wall had given way, the fatty contents had escaped into the tube. Several of the medullary tubules also contained fatty granular matter.

Remarks on the Case.

In the foregoing case, there is presented a well
a well marked and far advanced one of Pulmonary Phthisis, complicated with a form of Infection Brightis. It is not only typical of "Phthisis" as applied in our day but possesses the characters of such as would have been called Phthisis in the stage of Celtic. For there is abundant evidence of a "Consumption", not of the lungs only, but of the whole body.

Were the tubercular disposition not hereditary, there are sufficient facts in the history, to count for the production of the abnormal cachexia. Indeed it may be wondered at, that no evidence of it was developed until the patient had attained the 28th year. Some of the causes which might tend to produce this in her were, imperfect nutrition, some deficiency of food, the frequency with which she had been exposed to cold and damp, the respiration of impure air due to the crowded house in which she resided, the debilitating effects of previous disease.

The supporting each of the above views will recognize that which they believe to be the cause of the morbid state. But it is sufficient for us to know, that if there were no hereditary predisposition...
The predisposition that the causes above indicated were sufficient to induce, the state of sleepiness and of the delirium were hereditary, that, they no doubt excited its manifestation.

The kid probably suffered from cough, hacking than it is stated in the history. The chest dry cough becomes so habitual to the patient, that on occasion, as scarcely to attract attention, it is such as, in the subject under consideration, until it is attended by expectoration. That notice is taken of it. Almost coincident with the cough, the emaciated greatly. To the end of the case the loss of flesh continued to progress.

The renal attacks, appears where exit has existed notice about 6 months ago. The frequency of micturition existed for long, means where been an acquired habit & loses its importance as an indication of renal disease. It women generally, it is a sign of less importance than in males for in the former, circumstances may originate it, ultimately it becomes a habit. Such causes of it are the pregnant state, a loaded state of the fluids i.e. There is no history of an acute attack, but probably a chronic influence.
inflammatory state may have been excited, during, or after, a Rheumatic accession. About 6 months ago she noticed her urine turned slightly crimson. Since then the frequency has been decreased. There is no evidence of the urine containing blood, nor in such a case would we expect it. Shortly after the kidney evidently became affected, her appetite became bad. This seldom a patient so decidedly altered with Phtisis... Adenæa does not seem to have surperstened till 3 weeks ago. It then occurred along with the aggravation of the other symptoms.

From a consideration of the Pulmonary organs, we were led to conclude, that Tubercle had been deposited at both apices, also over the anterior surface of both lungs. That the tubercle had softened at both apices, and after death a semicircular, soft tubercles might be found. The correctness of this view was afterward proved by the "Scrotum Cadaveri." With regard to dulness on percussion, it may be remarked that when it exists it appears later than the least likely of the Physical signs. The dulness at the apex can...
I cannot be interpreted otherwise than tuberculosis deposition. A sense of the
present state would soon rectify any error, but in considering it, the condition of the Parietes
must be taken into account. But, because there is no dulness, if any other symptom or
sign of Phthisis be present, caution must be exercised in giving our diagnosis.

A distinct "Bruit de Put Jele" was obtained on the right side, but not on the left.
That a cavity was at that place was strengthened, but had it not been obtained, the presence of a
vomica would not have been less certain.

The late observations of Professor Bennett,
as detailed in this Clinical course, last Winter;
show, that this sound, may frequently be elicited
in other than the Phthisical state.

Thus, out of 100 promiscuous cases, the sound
could be produced in 29. Of these, it occurred
in Pleurisy, 5 in Pneumonia, 1 in Mero Pneumonia,
6 in Phthisis, 5 in Disease with Pulmonary complication,
& 8 in the Healthy chest.

These are sufficient to indicate to us, that
it is by no means to be relied on alone, a sign
of a
of a bronica, but they also show of perhaps even strengthen our view, that, when conjoined with the other symptoms of phthisis. The Brunt de pot fell may be still considered as a certain evidence of a bronica.

No Brachot Pot sound was heard on the left side. The absence of it might be due to the distance the bronica was from the breast, but that a cavity existed was pretty certain from the character of the vocal resonance, & other auscultatory sounds.

Auscultation showed the advanced stage of the case & a considerable amount of bronchial irritation. This, joined also to tubercular agency.

The respirations were not greatly increased in frequency; this has been accounted for by the diminished quantity of blood sent to the lungs. The ascites

The expectoration requires no comment. There never seemed to have been any tendency to expectoration. It had been, that there was no disposition to contract on the part of the bronica &

The frequency of the Pulse has been considered
Dr. Wm. N. Guy in Guy's Hospital Reports.
considered an indication of the existence of Phthisis. Amongst other supporters of this doctrine is Dr W. A. It may be viewed to regard it, as a sign of more importance in the male than female. As a sign of Phthisis, it is of little importance here, may be otherwise accounted for. It is in the early rather than the advanced stages, that it is to be held of importance.

The diarrhoea was exceedingly obstinate, resisted a long list of astringent medicines. We expected to find tubercular ulceration of the intestines, but no such morbid lesion was presented, at the post mortem examination. The view was strengthened by pain being complained of in the spine region. When the diarrhoea was checked, the sickness seemed to increase, "vice versa." Both were described to the pious membrane of the intestinal canal, as a surging the excretory function of the disorganised kidney. Syphilitic as well as lumbar pain was complained of; the latter may be referred to the renal morbid state. The former may also have been due to this.
but more likely was caused by the repeated vomits.

The edema ascites, were also explained by the change produced by the renal disease in the constitution of the blood, as will be afterword explained.

The symptoms of urine pointed to an advanced stage of renal disease. From the tube casts, it might be inferred that the case was originally of the chronic inflammatory character, but that a stenotic condition had supervened.

In such a case, the treatment most likely to be attended by success would be that, which supported the patient's strength, and altered the constitution of the urinary fluid. To fulfil these indications, Pleural Morrison, was given to assist or strengthen (or to give tone to) the stomach, a vegetable KRITON was prescribed.

Had the diarrhoea vomiting been entirely arrested, a more speedy termination might have ensued. These symptoms were therefore only the mitigation to exert this effect,
effects, prevent change in the medicinal, was necessary. The most powerful aid was derived from Opium, but whilst this was called for on the one hand, it was aiding to destroy the appetite on the other. Bismuth Flowers Powder, was the combination, attended by most marked relief.

But in a case such as this, one could not be looked for. What remained of the time was to render as easy as possible the death ward course of the Patient, and death at last, may be ascribed to exhaustion, rather than to any of the complications which sometimes terminate cases of Typhus Bright.
Case V

Thomas Miller.


Previously the patient appears to have enjoyed tolerable health. About 18 months ago, he contracted a neural disease, followed several months afterwards by sore throat. For the last year, he has suffered from rheumatic pains, chiefly in the joints of the lower extremities. He attributes these to exposure to cold and damp incurred at that time. Though accustomed to take a glass at Saturday night, he does not seem to have been intemperate in his habits.

In the case of Miller, there is presented a characteristic example of nephrosis of the kidney. The patient had suffered for about 4 months from weakness in the joints, but without any other symptom of renal disease, and about 3 weeks before admission, after walking exposed to the heat of a fire, he went out at night. On his return he shivered, felt very uncomfortable. The next day his appetite left him. He omitted his food. Felt thirsty, this skin became hot today.
in addition to these, complained of pain, in sides flowing: the former, shifting, the latter, constant. 
He rather improved, was able to work again, on Nov. 29th, after 4 or 5 days. After more than a fortnight, he continued to work occasionally. On the 15th Dec. a cough, viscid, expectoration began.
He had previously occasionally suffered from slight cough. Since the 7th, however, his feet had been oedematous, & in the last few days, his abdomen had also been swollen.

When admitted on the 19th Dec, he suffered from moist rales in both lungs, chiefly in night, at bases, & also posteriorly. Whilst at spines, numerous viscid rales were heard. Vocal resonance was increased, but equal, at spines. No dulness could be detected. He had cough, viscid, expectoration. The pulse was 80, full. He did not sweat, but used to do so at night. The skin was dry, spitted easily on pressure, about the ankles. The tongue dry, furry. Amenorrhea, great thirst. Pain in hypochondrium. Bowels regular. Diarrhoea, sweats ago. The urine was pale, clear, with suspended mucous cloud. Acid. Alk. 1020. Cooperates abundantly. No deposit. No tube casts, seen.

Three
Three weeks before admission, the patient laboured under febrile reaction, following exposure, and for the first time the evidence of renal disease is decided. On admission, the febrile symptoms continue, and in addition, there is extensive bronchitic affection of both lungs. The presence of tubercle at the apex, was not clear, but during the progress of the case, it became more apparent, and although not certainly ascertained, was suspected before death.

Dr. Christian states the "essential character of the chronic form of granular disease" as "a reduction in the density of the urine, with diminution of its solids, excessive reduction of the colouring matter of the blood, leucophlegmatia."

The first was presented in the case. The record we infer from the pallor of countenance as the case progressed, but the leucophlegmatia was noticeable, though not well marked. Then he was admitted for a little colour, still remained about the bulbar conjunctiva. Before death, the leucophlegmatia appearance was well pronounced, the density of the urine was still more reduced.
Library of Practical Medicine Vol. IV p. 280
He was ordered a cough mixture containing antimony, & the next day, to be cupped. The latter only partially succeeded, but he felt the pain in his side relieved by it. On the 24th he was much in same state & the urine of 10 1/4 1/4. On the 29th, the rectal, & after the use of Bisturet of Potas. On the 30th, he was better. The Bisturet continued, & continued to act as a blister to the right side. The urine continued of the same character. The Bisturet acted well, continue on the 10th, bile casts, containing oil globules, were seen, for the first time. There was slight jaundice in the urine. On the 12th a moist rale heard over upper 1/4 of right ant. surface of chest. On the 14th, he has been suffering from diarrhoea for a day or two, last night it was worse. From this period he never improved. He diarrhoea, though some times checked, in a time, was never stopped. He was ordered a variety of astrinents, vegetable mix, but with not success. The Bronchitis also though relieved, soon returned. He became excessively exhausted, emaciated, & at last died. Came late on the 20th of March.
Any termination, but in death, was for long seen to be a groundless expectation. The wonder was how he continued to survive so long. He was much emaciated, exceedingly weak, I appeared to die as much from exhaustion as from coma.

The diarrhoea was obstinate but as expected was unattended by alteration. Being one of those cases which are to be described, the uric acid function of the intestinal canal.

It might have been supposed, that the large quantity of urine, thrown out by the kidney, the specific gravity of which was not very low, would have almost prevented this, but the jaundice was otherwise. No doubt whilst the diarrhoea was excessive, the renal flow was diminished.

The case was also characterized by the presence of the choleraic affection. The cause of the nostril sate at first was explained by the presence of softened tubercle. No dulness was elicited on percussion during life but local dulness at an advanced period became thrilling on right side, which with the nostril sate led me to suspect Cholera.
A peculiar yellow colour of the albumen in the urine, when treated with heat and acetic acid, has been else where mentioned, as occurring in Bright's disease, in a thymic constitution. It was noticed in Gillies case. Thus in the 20th Feb. report states "that the white coagulum formed by heating is rendered yellow on addition of acid". That the explanation of the change is does not appear if were evidence required, it might indicate the thymic constitution of the patient. At least, we have observed it, in no other. Or is it only evidence of an advanced case of Bright's? Having only met with it in cases in which thymus was pretty well pronounced, we are inclined to the former view, but to explain it further observation is necessary.

In conclusion, the case is interesting, as shewing, the insidious manner in which renal leucosis commences, proceeds, terminates in death, and how important it is, that the disease be observed at an early period of its course.
Case VI

Margaret Keith.

Admitted Dec. 14, 1855.

All the history ascertained is, that she has been in the surgical hospital, for the last six weeks, for an ulcer of the leg. On Dec. 12, was suddenly seized with vomiting, headache, an moist heat of skin, but had no fever. These symptoms continue to this present date.

On admission. She appeared very cold, covered with browns, dryness of skin, furfuraceous, jaundice on teeth, breath foul, frequent vomiting of ingesta, thirst, general abdominal pain, diarrhoea, for 2 days, Pulse 136, jerking, imperceptible, Inflammation of chest found anteriorly at base, dryBronchial nodes. Posterior occasional dry Moist nodes. Local atness not increased, cough. Acid mucous, fuscous expectoration. Fleshy prostration, inclined to deglutirite. Headache. Skin hot, soft, no eruption, any where.

Nose dry. [Vii] - Pus. Affluence. 8 in. 4 q. horn.

Pulse 104.
Pulse 134, weak, slight red rash, in right arm. Also on left, not so bright. Throat, weak, tubercle. Saliva, diarrhoea, slight. Deaf, perspires frequently. Skin will the same. Urine, natural colour. Light cloud occupies half the vessel. Acid sp. gr. 1.017. Phases sent by Real Rhetic acid. Chlorides diminished. A few waxy casts.


Urine
25th. Jumendi rapidly this morning. Died at 11. A.M.

Remarks on the Case

In the above case, it is difficult to trace, when the patient was exposed to the influence of the scarlatina poison. No history of contact with an infected person could be elicited. The disease may have been communicated.
nicated by some of her friends, who visited her, whilst in the Surgical Hospital. But as there was no evidence of any of them suffering from the disease, it may be justifiable to suppose, that their clothes had conveyed it acting as fomites.

From an early period, the disease showed itself to be of a very virulent nature. The virulence or malignity of fever, generally seems to depend, in great measure, on the state of system of the patient, at the period of his exposure to the contagion. Just as with stimuli to the nervous system, e.g. of a spiritual nature, that which affects the head at one time, would not have the slightest effect at another. Many take such view as this, bestowed in explanation, of the so called "change of type" in fever? There are certain circumstances which affect the population at large. Such are famine, over crowding of the inhabitants of large cities, impure atmosphere.

Now it has been observed, that this change of type followed the failure of crops or other agricultural produce, & consequent high priced provisions, and the immigration of the Irish poor into our large cities. It is also alleged that acquired lop
it re, may be retained & transmitted to the succeeding property. May it not have been, that after the establishment of the circumstances above recited, such an alteration in the system & constitution, was induced, as to render the patient to assume an asthenic, rather than an atonic, type, of constitutional disturbance. Whilst it has not deteriorated the healthy physical powers of the population; and that those persons in whom the asthenic form is still met with, have either not been subjected to this acquired state, or by some change, in mode of living, or in climate, have been enabled to overcome its influence.

To return to our case. The patient in a cachectic state, further depressed by a recidivism of some weeks in the Leprous Hospital, is unable to resist the ulcerating contagion; the disease is in a malignant form. It was not until the third day after the eruption, that unmistakable signs of the disease presented themselves. The date, at which the eruption became perceptible, was beyond the usual period. On the second day, in the generality of cases, the eruption first became visible. But in the present
forms, it not only is later in appearing, but also as in Keitt's case, disappears suddenly. Thus, in our case, it became visible on the third day. It was gone on the next, the fourth: I did not again show itself. It was also limited or slight - all indicating the severer form of the disease. At an early period also, the voice became affected; the salivary glands were implicated. The Intestinal canal, soon sympathized in the constitutional disturbance. Vomiting indeed, was one of the earliest symptoms - it combined with the state of the nervous system, was by no means, a favorable indication.

The Pulse, was of such a character as indicated, along with the general prostration, of the patient, the exhibition of wine.

The Genito-Urinary system, is regarded with interest. The urine was obtained, the day after admission, the same on which the emetic appetite occurred, and our attention is directed to the presence of albumen. We are led to examine the source of the albuminous impregnation. It is evidently of renal origin for tube casts were found in the sediment.
We naturally enquire next, into the nature of this renal lesion. What is the form of the disease? Is it inflammatory or not? What is usually met with in Scarlatina is the acute desquamative form. There is no evidence of any such lesion here. The casts of the tubes would have presented a different character.

It may be urged that the disease was chronic, i.e., that it had existed prior to the breaking out of the fever. The proofs for such an opinion appear to the following. In strumous constitutions, the drying up of a long continued discharge, occasionally seems to hurry on the renal lesion, especially if a weakness have previously existed in that organ. And it may be said, that the vomiting, the diarrhoea, the diarrhoea, the oftenness, may all indicate a renal complication.

The view would partly apply, in an ule.

In which she was admitted to the Naval Hospital, had been healed. The patient was also of the sthenous habit. But it is met by the statement, that there was no evidence in the history of any renal affection, that had existed for any time, adenin would have been more.
less marked or some other symptomology have been present.

Lastly may not the albuminous state of the urine be merely functional? a temporary impregnation - unconnected with inflammation - due only to a renal irritant, exciting the effusion of the serosity of the blood from a Malphigian tuft. From the absence of other indications. From the fact, that as the disease (scarlatina) advanced the albumen decreased. From the character of the tube casts. This is the explanation which appears the most correct. That to consider this as a case of that form of albuminuria, which occurs as a regular feature of scarlatina - the result of the post mortem examination, confirmed this view: for although the kidneys were congested - no evidence of structural disease was met with either by the eye or when the organs were examined with the aid of the microscope.

The date of the attack was also against the inflammatory form. The latter generally complicates mild cases when the patient is going about whilst the skin is still tender.
The surface is chilled, unable amidst the effects of cold. Already, there is a determination of blood to the kidney. For it is but lately, that it has been engaged in eliminating the effects of tissue, i.e., as water, from the blood. Congestion. The 1st stage of the inflammatory process, results the other quickly succeed—until true inflammation is established.

It is generally, during the convalescence of the patient, that renal inflammation is to be feared & guarded against, and not at the commencement of the disease. For then the patient is in bed properly; taken care of. We cannot but conclude, that the state of the urine in the case under consideration, was due, or merely functional derangement which had the patient survived, would soon have passed off, & left the urine in its natural condition.
Case VII

John Handyside.


Residing at Dainty. Edinburgh.

Admitted Dec. 5th 1856.

This patient was admitted into the Infirmary suffering from Ophthalmia. No moist rales were heard. The case seemed hopeless and but slow progress. For the last 11 years he had been subject to frequent colds. He had had a boils 5 years ago, contracted venereal disease shortly after, went to London to follow out his occupation. Had one Thrush & Stricture there. He lost flesh, after a year residence there, became so weak, as he could not go work. He returned to Scotland. Was unable to work for two years. During that time, Dr. Grieve had operated on the stricture, he was now cured of it. Shortly after he joined the Police Force. Has continued chiefly as night policeman, for last 2 years. About the time he became policeman, noticed his feet swelled, some times. Previous to this, had noticed frequency of urination. For last 5 years, has had more or less discharge from penis. On admission he looked tolerably healthy. Height 5ft 6in, especially of short leg.
ley. He does not sweat much. Was cough, sternal, euryscincous, mucous purulent, expectoration, it is not abundant. Respiration hast, at apices. Expiration a little protracted. Left. Left dull, than right. Local resonance louder on left side. Pulse 80, of good strength. No diarrhea. Appetite impaired.


After a residence of several months, in the Hospital, he was dismissed on the 2nd of April 1866 "Relieved."
The oedema of the feet had rather increased. The apices were dull. No moist rales audible at them. He did not sweat at night. Had no diarrhea. The urine was copulatory. The urinary deposit contained pale waxy, fatty tube casts. Imposed granular cells & epithelial debris.

Remarks on the Case.

The case of Handyside, is one of peculiar interest, to the students of the morbid character of the
the urine. For it was not until closely questioned that it was ascertained that he had had Gonorrhea, still had a urethral discharge. The latter determined, one source of the albumin in the urine was accounted for, but the question arose, was it the only one? To the hasty observer it might seem so. As it might be said the irritation first caused by the structure, now by the fleet, is sufficient to account for his rising during the night to urinate. The swelling of the foot is so slight, it is a matter of no importance, is not to be considered as indicating anything of consequence. But it is not so. The diagnosis of renal lesion though difficult was correctly made. The urine was pale, with a specific gravity below the usual standard, but yet not of so low a density as to attract attention. It coagulated to a considerable extent, when hydrochloric acid was added. It was neutral. But its reaction was probably due to some of the purulent deposit having been decomposed, neutralized the natural acid state and did not indicate the state of the renal organs as pointed out by Mayou. He was on
dened, this point of Potters - after he had taken it
for some time, the disease advanced - all the
prurient deposit ceased, the present, the urine
then was clear, pale - acid, I with difficulty a
prurient deposit was collected in a test tube by
submitting a drop of this to the microscope.
Casts of the renal tubes of varying size, but
in the most part thin, were seen. Some were
of the very kind, mere cylinders of fibrine, others
contained a few fatty granules - which in a
third the fatty nature was more decidedly marked.
Confirming the diagnosis made by Dr. Bennett,
when the patient was admitted - It is,
in addition to the Pulmonary lesions, the sequel
of his general acccite, laboured also under one
of the forms of Brights disease, a form so rare
now found also the most insidious.

The period of the commencement of the
disease, is not well marked. But about 2
years previously, the first symptoms of the renal
lesion became manifest. The constitution
at predisposition, is evident; thus Dr. Christian
says "the strumous constitution is another
predisposing circumstance by no means un-

pregnant,"
unpleasant. Intemperance in alcoholic liquors, does not appear to have had much to do with causing the kidney affection. But another of the causes, mentioned by the above authority, which is found among those unfortunate who are "subject to visitations of heat and cold" peculiarly applies to the profession previously followed by the patient. For weeks the long continued urinous discharge he without effect. It is intimated, wrote, that signs of the renal disease, had presented themselves previously. This becoming a policeman, (night) one of the occupations said to be liable to the invasion of that malady. Nor yet does the exposure he was necessarily subjected to, seem to have increased the complaint for his health during the time, he was thus employed, was pretty good, better than he had enjoyed for two or three years previously.

The Pulmonary affection appears to have been making but slow progress. For some weeks after admission it was said the retrograde in character, during his whole residence in the Infirmary made slight, but very little advancement. Hereditary disposition as
as above stated, was strong. His father & 3 brothers having died of phthisia, but from the appearance of the patient, he cannot help thinking, that had he pursued a more healthy occupation, taken better care of himself, he would have had a fair chance to escape the disease entirely. This opinion would seem the more strengthened by the fact, that, whilst he pursued the occupation of a night watchman, the progress of the pulmonary lesion was stayed. Altogether, the case presented the appearance of one, in which a strongly made body was resisting the undermining effects of hereditary diathesis, the latter being strengthened by the excesses, the occupation of the patient, by an apathetic manner which he assumed.

The question then solved is, which will prevail? the constitution or the lachexia? We are inclined to the opinion, that when the renal as well as the Pulmonary lesion is taken into consideration, the Prognosis is an unfavorable one. In the Patient,
But with treatment, directed to support the patient's strength, to improve the depressed state of system by the following of an occupation, tracing but not fatiguing, or quieting against all excesses, protecting him from vicissitudes of climate. The fatal result may be delayed for a time; or it may even the, until it is due. If one thing cause.
Case E117

David Long


Admitted. Feb 29 1856.

Eighteen Months ago employed in a damp shop. To this date commencement of illness uncertain if he had cough previously. First had severe cold. Throat affected. 3 weeks confined. Only recovered strength on return of mild weather. During summer of 1855 enjoyed tolerable health. 6 months since was affected as at first. In last weeks dysphagia increasing. always had poor food. Habits temperate. increasing emaciation. sweats early. skin cool.


Pulse, 80 small, feeble. Tongue, moist, coated. dys.


12. Ret change. Hat Imp. Lytthe 5 x 3 to Laymen.

Feb 13. Urine of same character, less coagulable. No pain in urinating. Otherwise the same.

March 17. Urine turbid, abundant urates. Otherwise natural. Otherwise continues on admission.

Dismissed by Dr. L. March 18, 1856.

Remarks on the Case.

Were we aware of the respiratory and constitutional symptoms, presented in the foregoing case, it would only be a repetition of what has been stated elsewhere. We refrain therefore, from attention to the phenomena presented by the genito-urinary system, as they afford evidence of an idiosyncrasy, which is occasionally met with, namely, strangury, after the application of caustic substances to the integument.

Caustic substances act when taken internally, on the mucous membrane of the genito-urinary
any system. They are also stated to possess the property of stimulating the urinary secretion. The drug is employed to arrest chronic urethral discharges. With advantage, but when taken in large doses, it causes a state of active congestion of the urinary mucous membrane, strangury being produced, a condition attended by acute pain.

But this effect of laevanurides is not confined to the internal administration of the drug, for it is also found to follow the application of it as an ointment. This result apparently depends, not only on peculiarities in the part of the patient, but also on the state of the surface. For it occasionally follows the application of a plaster to the back of the patient, as, to an ulcer of the leg, in those in whom it does not occur when the surface is healthy. A direct action on the kidney appears sometimes to result, such as the suppression of urine. But according to Bayer, when taken internally, it would appear to act more fully on the bladder and urethra.

The case of Laing, would appear to support Bayer's opinion. For although there was some
M. O. Kayer "Traité des Maladies des Reins,
renal disturbance, as shown by the large excretion of urine. Still the chief situation of irritation, undoubtably was, the bladder & urethra, and in the former, the origin of the albuminous impregnation, is to be ascribed. The irritation was mostly temporary, and as soon as it had passed away, the susceptible state of the urine ceased.
Case IX

John Richardson.

Pt. 34.  Porter, Residing in Edinburgh.
Admitted March 22, 1856.
To Ward XXIII. Surgical.

History. 6 months ago was seized with an attack of bloody urine, followed by suppression.
Admitted into House. Treated by introducing trocips. In a few days the attack ceased, with the exception of an occasional tinge of blood in urine. He has suffered no uneasiness since.

Two days ago was again seized in a similar manner I came here this morning.

On admission. The patient under complete detention, but there does not seem to be any large amount of contents in his bladder. He has a feeling of great uneasiness, not amounting to pain, over hypogastric region. No pain in Loins. Urethra por Perineum. A full sized catheter introduced, and drew off about 1.2 oz apparently pure blood. It seemed also as if a large amount of clot, was in bladder.

Resp. still uneasy. Catheter passed several times during day. Ordered 1 oz purgative. Pain in

Skin
of urine supposing that it was urine. We innermost remember.
Still seem to the eye to consist of pure blood + clot. Under microscope show nothing. But shrunk blood corpuscles. The urine continued.
March 6 Greatly better. Blood almost disappear.
From urine. Some uneasiness about prostate. No enlargement of the organ. Urine a faint trace of albumen. No tube casts or only a few pus globules.
Discharged cured March 19th 1856.

Remarks on the Case

In the above case, there is presented a state of the urine characterized by containing blood. (or coagulable) The appearance of that fluid which should be confined, within the vessels, at the other end surface. Always convey an impression of danger, to the non-professional mind. If the
source be external, the natural tendency is to cure it. But when the hemorrhage arises from an internal part, the alarm it occasions is greater, and the appearance of bloody urine speedily directs the attention of him in whose system it has occurred.

The blood which characterizes hemorrhages may arise, 1st from the kidney, 2nd from the ureter, 3rd from the bladder, 4th from the urethra.

Which of these was the source of the blood, in Richardson? There being but 4 sources, the best mode to proceed will perhaps be to arrive at a conclusion by exclusion.

1st Had it originated in the kidney, there would have been casts of the tuber, or at least of the urates, and the patient would have likely complained of lumbar uneasiness or pain.

2nd Had it come from the ureter, we should have expected urine found casts of that canal, which are generally held to characterize this form of stone eructage. It is moreover an extremely rare one, seldom is, unless following the passage along it, of a renal calculus. If the latter there is no evidence in our case.

3rd From the bladder. The character of the discharge
discharge, do not agree with those generally observed, when arising from such an origin. For in these cases the blood passes, drop by drop, from the urethra, without any expulsive effort. It was not so, in the patient whose case we are at present considering. But it may be said that the abuse is not invariable, nor is there any obstruction in the urethra. The blood may flow back into the bladder. There was no obstruction known in Richardson. Is it unreasonable to conclude, that the vesical organ, gave rise to the hemorrhage?

The reason for believing the bladder to be the source of the blood, is, that having shown good reasons for excluding the kidney, ureter, &c., there only remains the vesical organ. It has accounted for as the origin. Reasoning in any other manner, it would be difficult to fix on the bladder, for there is no evidence in the history, nor in the state in which he was when admitted, to render the diagnosis certain. For, the presence of the clot in the bladder, might be sufficient to explain the feeling of hypogastric uneasiness, the only sign of the bladder.
bladder, being the seat of the disease.

We next naturally enquire, what are the causes of vesical hæmorrhage? They may be stated to be—

1st. The presence of a foreign body such as a calculus, or an instrument, introduced from without.

This as a cause, in the case under consideration, may be withdrawn—

2nd. The results of the inflammatory process of congestion, which may occur in leukitis or from ulceration of the mucous coat, from any cause—

3rd. A common source of the hæmorrhage is released prostate. Now, although he complained of pain in the prostate region, it was not, until the hæmorrhagia had almost ceased, and it was ascertained that the fluid was not altered in size.

4th. From the presence of worms in the bladder.

Thus Dr. Miller states that they "have been known to occasion profuse and even fatal loss of blood." This is an exceedingly rare occurrence. There are no grounds whatever for supposing
Practice of Surgery 23d. 1852 P. 456
posing it to be the cause, as Richardson.

Of the causes enumerated above that which appears the most likely is congestion of the vesical mucous coat. The view would seem to be supported by the following: after the first attack he noticed his urine bloody. Had it been due to any structural change during the 6 months which had elapsed from its first appearance, the lesion would have been more evident. The patient was portly, and likely the affected by congestions of internal organs, exposed as he necessarily must have been, to atmospheric vicissitudes. He belonged also to a class of men who seldom refuse a glass of whisky when offered them. But we rather prefer to take it spontaneously. The mucous membrane of the urinary canal would probably he excited while the external surface was chilled. The blood driven from the latter would be determined to the seat of the irritation, there the capillaries gorged & unable to resist the "vis a tergo" would give way, permit the passage outward of the blood. While the inflammatory process would be cut short at its earliest stage.

In Purpura, haemorrhinia is said, to be
occur sometimes. There are no signs of such a
deprived state of body existing. Had it been due
to this cause, the hemorrhage would not so soon have
been arrested & there would have been evidence
of the hemorrhagic tendency in other parts of the
system.

Hematuria, although occasionally, appears
rarely fatal from loss of blood, but the
Prognosis must be regulated by the cause
of the extravasation.

But, from the urethra, affords least uneasi-
ness. That from the bladder, is by no means of
trifling importance, depending as it generally does
the disease of the Prostate, or the presence of time.

Hemorrhage, from the ureter, though it may be
attended by excruciating pain generally leaves
the patient but little the worse for it. But atten-
tion should be directed to obviate its recurrence
by preventing its cause.

Renal hematuria is perhaps the form most
interesting to the physician. Special care should
be taken to guard the patient from all circum-
stances likely to affect prejudicially the kidney.
Such as exposure, ceasing in diet, intemperance, fatig
The treatment of Richardson’s case appears to have been attended by success. But in such a case, the haemorrhage may cease spontaneously. The medicine yet the credit of having effected its arrestment. The character of the urine may mislead. For the colour may be increased, by the breaking up of the clots in the bladder, whilst the heightened colour may be attributed to fresh extravasation. Caution must therefore be exercised.

The employment of the Catherin will generally be called for. The urine being retained, and injections of tepid water, with the view of dislodging the clots, may sometimes be useful.

Astringent injections, will be but very rarely required. Vaughan must have employed, until the effects of the application of cold externally or water, injected into the bladder, have been tried.

Of the internal remedies, the Tinct. of the Prune of Iron is the best. It not only acts locally as an astringent, but by its action on the kidneys, excites the flow of urine. Thus lends to wash out the clots from the bladder. The treatment of the other forms of Haematuria, vary according to its source & its causes.
Case X
Andrew Graham.

No. 32. Weaver. Residing at Newburgh. 
Admitted October 2nd 1835.


Present state. Pain in anterior part of perineum, increased during menstruation relieved some what after bladder emptied. Instructed every 1/4 of an hour passes about a cupful glairy urine, at a time. No pain on pressure, in pubic or perineal region. Urine is bronchitic red. Apr. 10th.

Coagulates, aprayish sediment, containing pus ever.
Other Systems Normal.


Octob. 3d. Pain better. Urine as before.

Octob. 11th. Pain during micturition. Legs tremble when he rises. Urine as before.

Octob. 13th. 43 Copiae water injected this evening. Intense pain. Temporary alleviation afterward. Pain now greater than formerly.


Octob. 24th. Pulce 86. Urine as before. Resp. cells. 110. good strong.

Wine
White 8 Exposure - Chicken.  
Put ezening. Fruit. Crepe. Otherwise the same.  
5m. Strength increased. Urine scanty. Passed  
every half hour. 6:12. Akin hot.  
4 Potas. Bicarb. 5r-3r. Spri. 7r. Sups. Brads.  
Nov 6th. Pus & coagulability. decreased. Micturates  
every 10 to 30 minutes. Otherwise decidedly better.  
Nov 11th. Improved in health. Prorig, pain of  
Frequency of micturition. 7 Pus containing urine  
Discharged by desire.  

Remarks on the Case.  
In the case of Graham, there is presented one of  
those diseases which, by their continuance, depress  
the constitution & rend the  
life of the sufferer miserable. The practitioner  
therefore feels, that, in treating such a case, the  
reputation of the art, which he professes, is  
A
at statue. And in some cases as in this, truly
not much credit, is gained, for from the dis-
position of the patient, that opportunity is sceen-
ly afforded, which is required, for effecting his
relief.

From a consideration of the case, there can
be no doubt that he laboured under a chronic
Inflammation, of the Bladder, of somewhat-
sudden origin. 2½ years ago. The disease
appears chiefly, whence affected the genito-
urinary course, toward the neck. The presence of a calculus
was suspected, but not verified. Nor does there
seem, to have been, any prostatic enlargement.

On admission he presented the usual symp-
toms of advanced Bicalical inflammation - frequent
and painful micturition, of a small quantity, often
containing urine, with pain in Perineum.
The latter indicating the chief side of the affection.
Of the cause of the disease little can be said,
with by no means clear. Escholnus may have pro-
duced catarrhe, or an acute cyclicity. He appears to
have neglected taking advice until the chronic
form of the disease was established, when probably
disorganization of the mucous coat, of an ulcerative
nature,
had been induced. A few disease of other organs, enlarged prostate, or calculus, been detected, or had there been any history of previous somnolence, the case would have been very much clearer. The existence of disease of a malignant nature, was not suggested by the appearance of the patient, nor by the character of the case.

The prognosis, however, was unfavorable. That partly on account of the patient himself; he was restless, his countenance did not afford pro

The effect of the remedies tried, when time was patient, cure of the disease might be affected, especially if medical advice be taken. But in most cases, by removal of the cause if still existing, the cure is more doubtful. But still, need not be despised of. Should, in this case, in most other chronic diseases, which issue with the discharge of daily duties, the patient become irritable, restless, expecting relief before the prescribed medicines can take effect, the prog-

nosis as Dr. Peirce said, is much less favorable.
A few words may be added with regard to the Treatment of Chronic Appendicitis.

In some cases, considerable benefit will follow the employment of Injections of tepid water, alone, or medicated. But this treatment must be pursued with great caution, as a general rule, when it occasions much pain, should be discontinued, at least, for a time. The practice is supported by distinguished names, but all agree that it ought not to be used indiscriminately, for in some cases it would seem to do more harm than good.

As internal remedies, Buchu, Pararea, Brauna, & Nova bres, enjoy considerable reputation, but benefit is also found to follow the employment of oils, such as those of turpentine & copaiba.

But in all cases, a clinic plan of treatment appears the necessary. In many cases, Rectal Ferri, Phosphates, is the most efficacious remedy.

When phosphates are present, in large amounts, the mineral acid may, with advantage, be inhibited.

To subdue the pain in the perineal region, leeches may be applied. The Pinnacum & Opium may be used. The best mode to administer it is by the Rectum.
Rectum - in the form of enema with starch, or perhaps better, in that of suppository. When so used, it will be followed, by considerable relief. The patient's sufferings. Counter irritation must not be neglected.

Special attention should be paid to the bowel, preventing the accumulation of feces, removing all irritation from them, more particularly from the lower portion of the large intestine. The diet should be simple, but nourishing. Stimulant drinks are contraindicated, except in cases such as frictions, where the state of dyspepsia necessitates their use. When the patient can, gentle exercise should be taken, to preserve the general health, which, as above remarked, is apt to become impaired from the protracted irritation.
Case XI

Ann Robertson.


Admitted Feb 19th 1856.

Previous to this attack enjoyed good, robust health. On the 18th when she awoke, found the left cheek swollen, painful, especially at root of jaw. Was not aware of having been exposed to cold or draughts. The attack was not preceded by rigors. On Thursday of 18th went out, then felt cold, shivered. Face hot, painful. Throat, back of tongue, pain, heat, redness, swelling had extended over cheek these. Never had a previous attack.

urates. Epithelial scales. No tuberc cast.
Pulse 92. In the hand, regular but very compressed.

21st Right cheek, swelling increasing. Hydrocotton in place.

24th Left cheek desquamating. 26th Improving.

March 7. Face regained normal appearance.

Discharged.

**Remarks on the Case.**

Idiopathic Erysipelas is generally considered a formidable disease and when we glance at the mortality bill, the fears entertained do not appear without reason. Thus the fatal cases in England for the year 1852 amounted to nearly 2100. But in estimating the importance of a disease, it is the comparative number of deaths amongst those affected which is to be considered. Thus the mortality in London is stated to vary with the severity of the epidemic from 1 in 3 to 1 in 1.
in 10 or less".

The large mortality, may be explained by the consideration, if the character of the persons who are likely to be affected by the disease, for as a general rule, the severe cases occur in those who are debilitated by excesses or weakened by previous illness, and the fact that those who are in a tolerable state of health, previous to the establishment of the disease, in the most part make excellent recoveries, was sustained by the observation, that the 2 or 3 patients admitted, with Encephalitis of the Jace, during last winter, in the Clinical Ward, were perfectly convalescent within 8 or 10 days, of the first appearance of the affection. One case was detained longer than the others, for she was attacked by Pneumonia during her convalescence from the febrile malady.

Although such idiopathic cases are frequently met with, I suppose that all cases are the result of a slight, cold, which would lead to serious ones.

Our treatment, therefore, varies, according to the previous state of the patient; according to his habits, I will also be influenced by the character of the Epidemic. Thus, if the patient exhibits the character of a typhoid attendant fever.
Gr. Guy.

[Handwritten text that is not legible due to the quality of the image.]
given. The strength must be supported by wine, other stimulants, spirits. A mixture of good strong wine must be ordered. When the stomach is irritable, clysters injected have been highly spoken of.

Each practitioner seems to have some favorite treatment of his own. Thus of all stimulants, Brandy is preferred by one, another approves of wine, whilst a third would combine ammonia with the spirit. A saline plan must be followed, says another class, but only wine but Quinine, especially during convalescence, must be prescribed. The Aniseate of Iron, is loudly praised, has been most successful in the hands of others. Whilst the system pursued in the present case, a diaphoretic plan is not without its supporters.

Is there any reason for this great diversity of opinion? From what is observed in other diseases, one would suppose, there ought not to be so much apparent diversity of opinion, as the reading our journals would lead the student to believe exists.

In ordinary cases, attention to the precise use of a bland diet, combined with
Diaphoretics, will generally be followed by succe-
cess. Of this kind of case treatment, that of
Robertson, may be taken as a type.
Where the Patient is debilitated, a tonic and
stimulant plan will be found most success-
ful, the object being to support the
strength, until the disease has run its course,
which it generally does within a fortnight.
When the Patient is of intemperate habit,
the exhibition of stimulants may be impon-
tive. The character of the stimulant,
does not appear to be of so much impon-
tence, as some would seem to consider it.
With the Intemperate Brandy, Whisky or
Aromatic, will probably be most success-
ful, but in these less accustomed to the ef-
fects of such stimulants, Wine, will not only
be sufficiently powerful, but far more pal-
atable.
The Astringent of Gin is also recommended
by the fact, that whilst it acts as a tonic
it also exerts an influence on the Neural
organ, and may thus aid the excretion
of effete matter. Whether this is of advan-
tage or not.
or not appears doubtful.

If local applications, by far the most soothing, is a lotion of lead opium - Relief, is also expressed, as attending the employment of corrodes, which whilst they protect from abscess, Phæric influence, are, so regards the part, innocuous. Of these flour or starch, apparently the most serviceable.

The character of the urine are sufficiently evident, and point to the importance of a histological examination. For knowing that Nephritis sometimes follows Erysipelas - He who trusts, to the coagulability of the urine, alone, without affording time for consideration, may be led, not only into errors of diagnosis, but also of Prognosis.
Part II
Chap. I

In the first part of this paper, a series of cases, has been presented, in the selection of which, we have endeavoured to obtain, such a variety, as will warrant us in arriving at the following conclusions, with regard to the one symptom or rather sign, present in all of them, namely, a coagulable state of the urine, on the application of heat, and addition of Nitric Acid. The following are the conclusions.

1st. That coagulable urine is a sign of greater importance in the male than in the female. For in the latter, it may be observed, yet independently of any disease being present.

2nd. That the amount of coagulability is by no means an indication of the severity or importance of the disease. Thus we may have a large amount of coagulation, in a case of Gleet, whilst but a small coagulation occurs, in an advanced case of renal disorganization.

3rd. That the coagulability, depends always on the presence of albumen. But that...
Albumen may be furnished by:

3. Extravasation of blood.

4. By purulent discharge.

5. By the serum part of the blood being effused, or the liquor vini or liquor.

6. That because the coagulability becomes decreased, or entirely disappears, we are not, therefore, in all cases, to conclude, that the diseased state to which this is due, has in all cases, suffered a relief to the symptoms, or that it has been cured.

7. That the coagulability must not be trusted to alone in framing our diagnost.;

8. That in all cases in which the urine coagulates, a histological examination should be made. To determine,

1. The seat of the disease,

2. Whether the coagulability depends on the presence of pus, blood serum, or liquor.

9. That although coagulability causes, a histological examination must still be made.

8. That coagulable urine indicates
one, or more, of the four following states:
1. Renal functional disease.
2. Renal organic disease.
3. Disease in some other portion of
   the Genito-urinary tract.
4. It may be present, yet not due to
disease.

Under the 1st class are included, all
temporary excretions of albuminous fluids
by the kidney, depending on some peculiarity in
the patient, following inflammation or fever.
Integumentary irritation, the ingestion of
indigestible food, or the exhibition of
substances having an irritant effect
on the kidney, ceasing soon after the effect of
the excitant have passed off.

Under the 2nd head are classed, the
2 great divisions of renal disease.
1. The inflammatory.
2. The Non-inflammatory.

The 3rd class is divided into 2 subclasses
according to sex.
A. Male.
B. Female.
A. Male, including all albuminous discharges from, a urinary bladder,
   b. Prostate,
   c. Uterus.
   d. Some cases due to Rheumatism.

B. Female, may arise from,
   a. Wary,
   b. Uterus,
   c. Vagina.
   d. Bladder Uretura.

The 4th class refers only to women, excludes the mensural discharge.

Under these 4 classes, will be found, the sources of albuminums inseparable from the urine. A minute inquiry in all the classes cannot, from the space allotted to this paper, be made, but in concluding it, it is proposed to direct attention to the 1st two classes alone; for the following reasons, 1st, because the presence of albumen is of much importance as regards the renal organs. 2d because they, as the source of albumen, come chiefly under the care of the Physician. We proceed accordingly to consider this eviden change.
Chap. 11.

Functional disease of kidney.

In considering this head, it is unnecessary to enter upon the details of the function of the kidney, but it is sufficient to remark that it is the organ by which the debris of tissue is chiefly excited.

In the normal state, no albumen can be detected in the urine by our most exact tests, but no doubt a very inappreciable quantity must be present, the result of the decomposition of the epithelial lining the urinary passages. The amount is so inconsiderable, as not to be of any practical importance. By the kidney is excited at the termination (in health) of inflammatory and febrile diseases, the so-called critical evacuation of lithates. The amount excited is sometimes very considerable, continues for several days, at a time. After an acute attack of Rheumatism, the amount of urates excited by the kidney, is exceedingly large. The urine may even be turbid with them when passed. After an inflammation, the circulation is supposed to be changed, during the processes of absorption, passing through the circulation.
Circulation is separated at, executed by, the kidney, in the form of lithate, chiefly of ammoniac or soda. Another source of the lithate is the nitrogenized food. Thus Dr. G. Bird, states a source of it to be, "the nitrogenized elements of food rich in nitrogen, which escape the completion of the process of primary assimilation, or undergo the changes consequent on that function, so imperfectly as not to be completely converted into the healthy constituents of blood." "Why they are thus excreted at one time, as uric acid, or urate of ammonia, and another as urea, we are as shamefully ignorant as ignorant it is to say."

It will be generally allowed, that after muscular exertion, that towards the terminating inflammation, the critical period of fevers, and in certain cases of indigestion, a large amount of uric acid is formed, is excreted chiefly as urate of ammonia by the kidney. That organ, has been performing its normal work, or it may be has been less active than usual when suddenly an increased amount of work is demanded by the system from it. The blood is loaded with circulation becoming retarded, and no delay.
Urinary Deposits. G. Bird, M.D.
1863. 4th Edn.
delay can be allowed, the kidney is crowded by the necessities of the system, the effete matter must be removed, the working is almost greater than it can perform. The vessels are constantly bringing more debris to be removed. The secreting cells are busy, and not only has the process of excretion to be continued uninterruptedly, but the growth of cells fit to secrete has to be conducted with astonishing rapidity. The amount of epithelium thus destroyed is evidenced by theropy viscous mucus in the urine. The kidneys are congested, the circulation in them is slowed. The tubes are for the time partly deprived of epithelium. The debris of the cells and the excretion of solid from the kidney obstruct the renal tubes; a fluid of high density is contained between the obstruction and the Malphigian duct. We have thus two fluids of different densities separated by a membrane. These are the circumstances necessary for osmosis or exosmosis to take place. It probably does so, and not only, does the watery part of the fluid pass, but some of the albumen passes with it, into the tube. The obstruction yields to the pressure from behind; the fluid escapes, & this occurring in numerous tubes & frequently.

May
may perhaps render the urine albuminous. When we consider the position, & function of the Multheigan Slight, it is probable that the change between the serum of the Blood & the fluid in the renal tubes, takes place at it. This is one way in which albumen may escape into the urine.

Or, it may be, that the irritation produced by the continuous excretion of urates, so irritates the organ, that not only does the water of the Blood pass, but an albuminous fluid escapes. It is evident, the lesion accompanying does not excuse, for the tube casts when seen, are extremely fine & delicate, they are also emptied few.

But what facts are there to support this view? That the kidney has increased work, no one can deny, but in proof the statements of Dr. M. Becquerel & L'Heretier may be adduced.

The former took the average of 11 acute inflamed states, the latter 12 continued fevers. The amount of uric acid excreted, was found to be nearly double that of health. Thus:

<table>
<thead>
<tr>
<th>No. Inflamm</th>
<th>Fever</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uric Acid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hpr. grand urine</td>
<td>10.216</td>
<td>10.229</td>
</tr>
<tr>
<td></td>
<td>1041</td>
<td>1312</td>
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</tbody>
</table>
There will be sufficient to show, the greatly increased action, the Kidneys have to perform & it may be stated, in passing, that after fevers inflammation, it has here been done by an organ less active than usual. In during the onward course of the disease, not only is the fluid excited, less than its health, but the solids too, are reduced in amount. The cholrides, for example, are sometimes not only deficient but may be entirely absent. The view adopted above is also supported by the fact, that all cases of Luminous albumin in urine (excepting those following cutaneous irritation, or the exhibition of certain drugs) are such as are very likely to be preceded by the discharge of urates. Thus Dr. Christian tells us of a case, where albumen followed the eating of pastry, a very indigestible article of food, one which would doubtless increase uric acid or its salts.

Albuminuric urine, again, is observed to follow the critical convulsions of fever, as above stated, that crisis is marked by the presence of a large deposit of urates. At the close of inflammation too, the lithates are excited in profuse quantity, due to an albuminuric urine has been ascertained. The cause of this is believed by
believed by some, to be due, to part of the cause, which has been absorbed, as albumen. It circulates through the system, in, but yet not of, the blood, or comes to the urine out of the system at the kidney, in some way or another, but always albumen. This view appears to be unphilosophical, and is not supported by other facts.

The endosmotic or irritant views, also help strengthened by the following, that in the fatty diathesis, tube casts are sometimes visible in the deposit, when subjected to the microscope, for some time before albumen is detected by its tests, in the urine. This is, at the commencement of an inflammatory state of the renal organ, due, no doubt, to the very frequent irritation produced by the excretion of uric acid salts.

To conclude the view introduced above appears there could some facts be support.

The next point to consider is the presence of albumen, after the application of causticides externally. It is not a common occurrence. It may be explained by the latter of the views given above. That it is due
To a directly irritant effect on the urinary, (or other part of the urinary, mucous membrane as the bladder). Some of the active principle of the catharticides, may be absorbed, thus from it may act the kidney. Again, when we consider the intimate relation between the skin and the kidney, it is not difficult to imagine that the irritation produced on the one may through reflex action be conducted to the other. Or again the kidney may have been previously irritated by the discharge of lithotripsy resulting from the inflammation in which the blisters were applied, thereby being predisposed would be readily affected by further irritation. After what has been said, the effects of catharticides when taken internally need not detain us.

It is alleged that after the exhibition of mercury a copious state of the urine has resulted. Dr. J. Reed (apparently because he has not observed it) “is quite satisfied that mercury will not cause albuminous urine.” This appears I have been more fortunate in their observations. I have noticed such a state of the urine as follow the employment of
On Diseases of the Kidney by G. O. Rees, M.D.
1850
This Medicine. It is probable that Mercury, when administered, is excreted from the body by the kidney. We have not met with any observations in which the drug was detected in the urine, but may not the fact of the system being peculiarly liable to the influence of Mercury when the kidney is diseased be explained thus. But from the point of the renal or an opposite of the medicine is retained in the system than when the kidney is healthy.

With regard to the menstrua menstruall secretions when it takes place from the kidney, is derived without doubt from the Malphigian tubules. This is not a common occurrence for this excretion has no recent observations have been made on it we may even doubt the correctness of some of those we have. Without attention to the symptoms accompanying it an awkward error in diagnosis might be made.

In the first urine passed by cholera patients, albumen has generally been detected. Its occurrence appears to be merely temporary, the excretion soon after acquiring its usual character. But from personal observation we cannot speak.
Chap. III

Desquamative Nephritis,

A name first introduced by Dr. George Johnston of London. What do we understand by it? It is a disease of the secreting portion of the kidney, characterized by rapid extensive desquamation, of the glandular structure of that organ; by an exudation of Liquor Sanquisinus, even in some cases by extravasation of blood into the urine tubes: the result of which is, that the urine is coagulable, on the application of heat, the coagulum thus formed is not dissolved on the addition of Nitric acid. This is what we understand by "desquamative Nephritis" and in the succeeding pages, we shall endeavour to show that it is a disease which presents all the characters of a true inflammation.

Let us now examine the phenomena presented in the course of the disease. Two forms of the disease are generally recognized, an acute, a chronic, whilst agreeing with this division, it scarcely appears necessary to think of them, under separate heads. For this disease like all other inflammations, may be acute or
the usual course of inflammatory affections. This it may terminate in complete restoration of function in health or it may become chronic, i.e., the disease may have been chronic from the commencement. It is unnecessary to treat of these forms separately. We proceed therefore to examine the pathology and anatomy of the disease.

In the present day much has been said and written about inflammation. All agree that the word is too loosely applied; the only difficulty experienced is, how to restrict the term, how to define it. In surgical practice to say that inflammation is characterized by pain, heat, redness, swelling, is correct; but there are merely the signs which have been empirically recognized. To call these inflammation is only to apply the word to a series of symptoms, without reference to the pathology and nature. But when we come to medical practice, the signs of the Surgeon cannot be appreciated, because although the pain, heat, redness, swelling, exist, still they are hidden from our view. The surgical explanation does not hold in medical cases. What is wanted therefore is a

simple
definition of what Inflammation is. This has been
supplied by Dr. Bennett, when he defined Inflam-
mation as "an exudation of normal liquid
together". This is a clear principle, but yet compre-
henesive limitation of the term, appears to be the
least objectionable of any brought forward. In the
remarckable which follow, it is the definition adopted.
The peculiarity of the inflammation of the kid-
ney, is, that whilst in other organs, the exudation
is retained in the tissues, in nephritis, it is constant,
by passing away, as soon almost, as it issues from
the bladder. It is probable that in inflammation
of other parts, the exudation being retained, coag-
ulating, exerts a mechanical compression, may
prevent further loss of liquid tannin. But in
nephritis, no such power is in force. May not
therefore the liquid tannin continue beyond for
longer period, and even to a greater extent (when the sur
face implicated is considered), than in other parts?
Congestion of the part, is generally allowed to
be a precursor of inflammation; hence the red
ness & partly the swelling, of external inflammation.
The nearest step is the exuding from the
vessels of the organizable portion of the blood. In
Borne.
Some cases, the action may be higher, extravasation of the blood corpuscles may even take place. According to the surface on which the extravasation happens, or its course. It may be plastic or parenchymatous. If the disease may be arrested. The exuded matter almost entirely absorbed or thrown off. These changes may be perceived in the course of a pneumonia and also in desquamative nephritis. In the first stage of the disease we find that the kidney is swollen & congested, when cut into is found to be gorged with blood. The extravasation may have taken place, or blood may have been extravasated into the renal pelvis – this can be ascertained by subjecting a section of such a kidney, to the microscope. The coagulated fibrine may have entangled the epithelial cells only, or it may contain blood corpuscles; if extravasation has occurred.

I have only seen the post mortem examination of one such case. The patient previous to the attack was healthy. She was seized with acute rheumatic Pericarditis, & Nephritis, in spite of the most active approved treatment, died within 8 days. During life
life the urine was scanty, thick coloured, containing a considerable quantity of blood. Numerous tube casts, entangling blood corpuscles, & renal epithelium, were contained in the sediment. At death, the renal organs were greatly emaciated, & much enlarged, externally their colour was heightened, blood dropped freely from them, when incised.

From the accounts furnished by those who have had opportunity to form an opinion, the above appears to be what is generally observed in recent cases of acute nephritis. As the edema advances, the blood disappears from the urine, but the latter is still coagulable by heat. Thymic acid, & at last this too may cease to be observed.

The casts in this form of renal disease, are usually found to contain pus corpuscles. The reason of which appears to be, that whilst the exudation has taken place into the tube, the Malphigian pinnæ left behind it, still continues to excrete water which press the ephrines of pusine onward, before the suppurative changes have been effected.

The appearances presented by the kidney, after death, merit solicitude, and

Diseases of the Kidney, by Dr. George Johnson
London, 1852.
In acute cases.

As stated above, the kidneys are much enlarged. They are distended with blood, as might be expected, the weight is considerably increased, varying from but little above the proportion to 10 or 11 ounces. Externally the surface is smooth. The investing membrane can be removed without difficulty. The surface may then present a papery appearance, or it may be pale. Perhaps described as anemic. This anemic state, according to some authorities of judging, is not frequently met with in acute cases. In a third variety, the surface may be found mottled, with injected vessels. The lobular structure is sometimes distinct, at others the reverse.

2. In Chronic cases.

In chronic cases, on the other hand, the kidney is as a general rule decreased in bulk, seldom is it increased. But in cases of not very long standing, it may deviate but little from the normal standard of age and weight. The capsule adheres with considerable firmness.
ness, and the surface is smooth, theROUGHENED.

Externally, the organ may be injected, but in
the most part, it is pale, of a Savon colour.

The more chronic the case, the more is the
surface indented. The texture of the organ
feels consolidated.

On dividing the kidney, in the acute
case, a considerable quantity of blood escapes,
but in the chronic, the organ contains but little.
In the former, the cortical portion is found
above the chief seat of disease, and in the latter
the same part is found to be affected, but in
the appearances presented they greatly vary.

In the acute, the cortical portion is congested
and enlarged, whilst in the chronic, it is pale,
flaccid, atrophied. In the latter too, the pyramids
are near the surface, and approach each other
thus the depressions on the surface formerly men-
tioned are accounted for.

The changes observed in structure
of the organ, by means of the Microscope, now
occupy our attention. After making a
careful section, the observer may find that
the tube he is looking at, is scarcely if at all
affected.
affected. The inference from this is, that all the tubes of the cortical portion of the kidney are not affected, but some only. Others of the tubes may be perceived, the almost blocked up by secreting cells, in some cases a distinct cast of the tube resembling those seen in the urine, may be dislodged. Not only does the cast contain those degranulated cells, but it may contain blood cells.

Dr. Johnson mentions, that oil may sometimes be seen in the tubes. The exudation is passing through the various changes the tubes present. This fatty appearance may be explained by the changes taking place in the fibrine. It will not be seen in all but only in those tubes where the exudation has existed for the time which necessarily elapses before these disorganising changes happen.

It is of some importance, that as accurate an observer as Dr. Johnson, states, that the appearances presented by the straight tubes, are accounted for by the presence of the cells, from the cortical substance.
Dr. Johnson, op. cit.
seine - med. chirurg. - transactions.
From the observations we have had opportunities of making, in comparatively acute cases, his statement is apparently quite correct. We have pretty distinct evidence, that the cortical part of the medullary portion of the organ is the part affected.

A glance at the state of the tubes in the chronic form of the disease has next to be taken. They present a variety of appearances. They may be filled, atrophied, or dilated into "cysts."

1st. They may be filled by secreting cells, but little altered in structure, or 2nd by disintegrated cells. According to Johnson, the tubes after the quaternation has taken place, may be filled by an unorganized fibrinous material which forms the "large waxy casts" of that author. This he believes "the evidence of the almost extinguished secreting power of the tubes. The globules may also be present in a few of the tubes, but this is probably confined to cases of long standing with regard to the 3rd appearance, presented by the kidneys, namely the formation of minute cysts a few words are necessary. A view supported by Mr. Leim, Rokitansky, and others.
Contributions to the Pathology of the Kidney by
Dr. F. W. Hastrich, M.D.
the supposition, that they are caused by enlargement of epithelial cells. This explanation has been objected by Dr. Gardiner Johnson, who, although differing in some respects, agree in regarding these microscopic cysts as due to widening of the renal tubes. The latter view appears to afford a more correct interpretation of the phenomena than the former. We therefore regard these cystic formations as one of the morbid changes sometimes occurring in chronic desquamative disease.

In addition to the above, the fibrous tissue of the gland is sometimes evidently increased. What thickening of the walls of the vessels has frequently been observed by Dr. Johnson. The malphigian tissue, however, appears to be long unaltered.

Having reviewed the morbid anatomy of the kidney, let us next see how far the symptoms evident during life agree with the appearances presented in the organs at death.

As might be expected, the symptoms are divided into general and local, but the latter is subdivided in 1st those of which the patient is himself conscious and 2nd those of which he is ignorant. The signs
Signs of the disease—that is, the appearances presented by the urine, its qualities, as ascertained by chemical processes, & histological examination. These remarks apply, both to the chronic & acute forms.

All the varieties of renal disease are especially liable to be complicated with diseases of other parts of the system. These complications may either be antecedent to the renal affection or may follow it.

Symptoms of Acute Desquamative Nephritis

The constitutional symptoms, do not differ from which, characterize acute inflammation of other organs. There is feverish reaction, preceded by rigor, whilst generally, local pain is soon after complained of, but occasionally the local symptoms precede the constitutional.

The patient complains of headache, the urine is loaded, thirst is urgent, the appetite is gone, sickness may supervene. According to some authorities, the urinal smell may have an unctuous smell. The bowels are confined, the abdomen may be tympanitic. The patient is pale, anxious, restless. The Pulse, at first, is quick, strong, The
Dr. Christian. Lib. of Med. Vol IV
Johnson, op. cit.
Skin is dry, its temperature elevated. The symptoms immediately separable to the morbid are, pain in one or both loins, now it is dull, heavy, again it is acute, severe, deep, sorely increased by pressure, movement, or the respiratory acts. It may localize toward the ileocecal, inside of thigh. The former may even be retracted. Epigastric tenderness or pain, passing round to spine, may be complained of. The patient generally lies on his back, has frequent catarrh, irritable, but this does not always occur. These symptoms may be complicated by toxic effusion, or by inflammation of other parts.

During urination, there is "sometime a degree of pain or scalding". The urine is scanty, varies in color, it may be suppressed. When passed, it is highly albuminous, a large curdulum being formed when this heated acetic acid is added. The specific gravity is variable, it may range from 1.020, to 1.025 or higher. On standing, a copious sediment falls: it is colored, generally by blood, in its parts of the tubercles found. They are of the desquamative character & are numerous. They consist of corpuscles...
ed fibrine, which has caught the blood-plaque, secreting cells of the tube, thus assumed the form of the tube, it is exuded into. Dr. Johnson considered the epithelial cells are cut off, in their endeavors, to eliminate a poison from the blood, but may the desquamation not be a result of the inflammation? just as threads of mucous membrane are voided in the stools of those suffering from inflammation of the intestinal canal? And once our instead of increased secretion going on, the very reverse appears to be the case, from an early period there is evidence that the earthy constituents of the urine are defective.

Numerous blood-corrupted epithelial cells, their debris, are also found in the sediment, crystals of uric acid may likewise be met with.

The case may terminate in coma, or running the ordinary course of inflammation, gradually improve, the severity of the symptoms abating. As in inflammation of the lung, one of the best indicators of improvement is, the respiration becoming less urgent, i.e. the organ resuming its normal function, John
here the best sign of improvement, is, the resumption of the exciting process. The urine becomes less bloody, its albuminuric, but gradually this too decays; its quantity is increased, but the specific gravity is not much raised. The normal colour is reconstituted, the deposit is no longer dark colour, but may contain crystals, chiefly of uric acid. The tube casts are sometimes observed to contain oil. When the case is recent, evidently improving. This although an unpleasant appearance need cause no alarm, but if the case is evidently becoming chronic, it may well excite our utmost forebodings. In the recent case it may be accounted for by changes taking place in the renal tissue, probably becoming molecular. The molecule uniting & chemical change at the same time gravity are going on. Many casts, that is a cast containing neither blood nor epithelial cells, a cylinder forming may occur.

The case improves; all these evidences of disease disappear, the kidney resumes its function. The urine its normal character, traces of present subsides, all constitutional disturbance is allayed. The patient is restored to health. Or the case
case may continue, the tube casts become "granular"; the disease is passing into the chronic form. The symptoms of which will next be considered.

Symptoms of Chronic Desquamatative Nephritis.

This form may, or may not, have been preceded by an acute attack. In many cases it comes on slowly insidiously, so made considerable progress, before its existence is suspected. The constitutional symptoms are obscure. Frequent attacks of fever or rheumatism excite our attention, especially if the patient have ever laboured under the acute form of the disease. The complexion is generally pale and muddy looking; a want of expression and animation in the countenance. The integument is dry, may be edematous, there may be puffiness of the face, upper part of the body, if the patient has confined himself to bed. The appetite at the commencement of the disease may have been poor, but during the progress of it, he comes improved. First, as the disease advances is complained of. Epigastric pain or uneasiness is experienced, the patient is troubled with
with flatulence. Vomiting is a variable symptom. It may present itself occasionally, though not persistently. Headache, or heaviness, is sometimes felt. The patient may be drowsy. Dr. Johnson mentions Kristian's Menorrhagia in connection with what is termed desquamative disease. We have not met with them in this form of renal affection, but have seen both occur in cases of fatty degeneration. "The disease is said to commence or to be combined with inflammation of pelvis of kidney." The patient frequently rises to urinate, this sign is more marked during the night. Troubled questions the sufferer is so accustomed to the act, as not to mention it. The urine in this form of the disease seldom contains blood. The amount of albumen present in the early stage is small. According to Christison the urine "seldom contains blood or albumen; unless other renal disease concurs." Such is the state of the urine in the early stage of the disease, but as it advances the presence of albumen in the urine is indicated, especially after the excretion of little salts, and ultimately it becomes "permanently albumin..."
ous. - The various stages of the disease are characterized by tube casts called by Dr. Johnson "granular," which appear to consist of fibrine coagulating centarily tied the improperly formed epithelial cells. Or the desquamation having left the tube bare the casts may contain not only assuming the "mawk" form. The urine may continue of a natural colour for some time, but at length, it becomes pale "of a whitish colourless appearance." The absence of blood from the urine has been accounted for by the observation, that as the case advances, the Malphigian bodies become thickened.

With regard to the frequency of micturition. This is probably a reflex act intended for the removal of an irritant from the urinary passages, just as cough follows laryngeal irritation or a foreign body in the conjunctivae causes weeping, flushing of the secretions, from the lachrymal gland.

Such are the symptoms typical of Acute and Chronic desquamative inflammation of the Kidney. But as previously observed, they seldom occur without some complication. The nature of these
has next be shortly considered.

The diseases which complicate the quaternary nephritis may be divided into three classes.

1. Those which precede it.
2. Those which accompany.
3. Those which follow, or are caused by it.

Under the 1st class are included scarlatina and to speak generally, the so called eruptive fevers. These as complications of nephritis may be objected to, but it is considered proper to mention them because the disease often attacks those recovering from one of them.

One of the complications most frequently encountered is Bronchitis. The Arthritic Diathesis may next be mentioned. It not only precedes the acute attacks, but frequently supervenes upon it.

2. Of those complications which accompany nephritis—dyspepsia in various forms holds a prominent place. In cases of some standing chronic vomiting is a marked symptom & even occasionally indicates the physician to examine the urine.

Another
Another of the most common attendants of both forms, is anasarca & dropsy, but the explanation of effusive differs according as it complicates a chronic or an acute case. Anasarca is more frequent than ascites. The latter is said to be oftener met with in sterility, but ascites rarely occurs without an anasarca.

In the acute case, when the urine is scanty, the anasarca may be due to retained secretion, but in the chronic the state of the blood appears to afford an explanation of its occurrence. In the latter form, the blood is more serous than in its normal state. This is caused by the loss of albumen it has sustained, or by changes effected on it, by retained secretions. These remarks apply to the liver, as well as to the inflammatory states.

Disease of the liver appears sometimes to be accompanied by an anasarca. Cirrhosis of the liver, again, being the form most commonly met with.

3. Those which follow or are caused by it.

Of these complications, diarrhœa, may be first mentioned. In most cases it appears to be due.
to a vicarious excretion of urea, by the mucous
membrane of the intestinal canal. This is prob-
tably also the cause of the dyspepsia. In the
untreated cases as were formerly stated have
been observed frequent "unctuous odour."
If Phthisis be present, as containing the cause
of the diarrhoea, may be a matter of some diffi-
culty. This is of importance as regards treatment.
Absorption of the intestines, though expected, may
be looked for in vain. According to Christian
Hose, absorption (not perforation) may be found.
But is being present, forms rather the excep-
tions than the rule.

Of the inflammations of the serous surfaces,
those of the Pericardium Pleura appear the
most common. The Peritoneum too, is found
affected, but we know that in Strumous con-
stitutions, this membrane is especially liable
to become affected, and in nephritic cases, ar-
vailing in such manners, it may be doubtful to which
cause it is the referred, such doubts may in general
be easily solved.

Phthisis, as a complication, appears to occur
most frequently in stenotic cases, but it seems
on follow the renal affection? It will generally be found on inquiry, that some of the symptoms of Phthisis made themselves manifest, previous to the renal attack: but who can doubt, that the changes effected on the blood by the pastie disorders arising from the latter, must have a decided effect, in favoring even stimulating the progress of the former.

Of the other affections of the Respiratory organs Pneumonia seems to present itself as a complication of Acute Phthisis more frequently than of any other form of Bright's disease. Whilst in the Chronic Forms, Pulmonary derangement may be referred to effusion into the tissues just as it occurs elsewhere, so may embarrass the Respiration.

It may be proper here to make a few remarks on disease of the Heart, which is said to be of two kinds. A distinction which although very evident, does not appear to be generally made, from the subject of the following observations. All are now agreed, that Hypertrophy with or without Valvular lesion, is due to the state of the blood consequent on the renal affection.
Johnson op. cit.
affect. It has also been said that cardiac obstruction causes disease of the kidney, but this statement is questionable. Thus Dr. Johnson writes, "The kind of disorder most likely to produce renal mischief is, in the heart, disease on the left side, either of the aortic or mitral valves;" the cause generally being that the blood is impinged on or poisoned. The desquamative changes at the kidney result. Had he said, that a lesion on the right side of the heart caused mechanical obstruction, it might have been probable, but even this as the sole cause is liable to be doubted.

In explanation of the facts the succeeding statements are offered. Rheumatism, especially affects the joints linings the bursae. Sclerotic disease, is the result generally of a rheumatic endocarditis. May not the joints lining the kidney have been affected at the same time as the cardiac, or may not the exuding substances have been injure, as explained in Chap. 2 by the rapid excretion of the results of the rheumatic attack, the irritation may have continued so long, that a sub-acute inflammation has been excited,
Prof. Simpson, Astronomical World Vol. I
The subsequent result is, a confirmed attack of chronic nephritis, which ultimately, generally assumes the necrotic form. In other words, that the renal + the cardiac morbid states, due to the same cause, but that the obstruction caused by the valvular lesion, must have a prejudicial effect on the kidney, or again that the latter acts on the heart by altering the constitution of the blood, appears to be the correct explanation of the observed phenomena. Valvular disease with hypertrophy.

Lastly, the affections of the nervous system require to be shortly noticed. In all forms of "Morbus Brightii", but especially the chronic, it will be found, that there generally is, more or less, affection of the special senses. The eye is the organ most frequently complained of. The patient suffers from dimness of vision. According to Simpson, this is sufficient to induce an experienced Practitioner to examine the urine. Dimness of vision may also be present in the acute form.

Convulsions in Pregnancy are now satisfactorily proved in the most, just, to depend on renal disease. Abnormal urine being found in
Most cases, except those in which the patient has been the subject of Epileptic fits. Previously Dr. Simpson, who has contributed greatly to the state of this interesting pathological disease, mentions the curious fact, that these convulsions generally complicate the labours. He also states, that the patient in many cases makes a good recovery when the case is seen, recognized in time. It is exceedingly likely, that the causal lesion is rather of an acute than chronic form.

But convulsions are not confined to pregnancy, and when not complicating it, occur in the chronic stages. A variety of it may sometimes be observed shortly before death. The patient continuing to grind his teeth for some hours with little interruption.

In all forms of the disease, a termination which excites attention is Aphyalepsy, ending in fatal coma. In examination no symptoms of Campque, or Aphyalepsy are found. Fluid effusion may be present, but the amount of fluid is insufficient to account for death.

What then is the cause of death? The point is debated. On the one hand we have those, who,
who say, the retained urea as urea is sufficient to cause death, or the other, those with French at their head, who hold that urea as urea does not occasion the fatal coma, but that it is the convulsions are due to the chemical changes taking place in the area by which it is converted into carbonate of ammonia; that the latter, circulating in the blood, poisons the whole system, its effects are shown by the resulting state of the nervous system.

In conclusion, the patient may sink from exhaustion. Slowly, daily, surely, the strength is lost; there is no trace of reaction. Stimulants may delay death, but cannot retain life. In spite of them, the patient slips away to rest.

Causes of Desquamative Nephritis.

These need not detain us long. As in other diseases, so in this, they are predisposing and
The Acute Nephritis may arise idiopathically, from the ordinary excitement of inflammation.

That every one has his weak point is a doctrine which will be generally received. With this one it is his kidney, with another, the lung, whilst a third is subject to diarrhoea. Expose those persons to the same agencies in the same circumstances. The throat of the one, the pulmonarv apparatus of the second, the bowel of the third, will be the seat of each which becomes affected. So with the kidney. In some persons, this organ is liable to the occurrence of the inflammatory process. Hence on exposure to cold, from in some individuals, an acute Nephritis is excited.

But in no case is the effect of Integumentary exposure, more likely to cause renal disease, than after those maladies which have stimulated the renal gland to remove a large amount of waste which are excreted at their termination. After no disease, does such a result appear more likely, than during the convalescence from a carbuncula. For the skin is still tender, the kidney has been lately
lately excited. Cold chills the surface, the blood is determined to the renal organs. If the latter have sufficient power present, the disposition of the blood again becomes equal. The bad effects ensue, but if not, a state of constriction follows in the gland. Then an inflammation results ensue. This view is supported by the facts, that nephritis does not generally occur until about the 14th day of the fever. The patient is tolerably well, is moving about, is suddenly exposed, is chilled, becomes the subject of a renal complication.

Nephritis states elsewhere in the urinary tract act as an exciting cause by irritation or by causing obstruction to the passage of the urine. Of the predisposing causes, inflammation of the kidney, none is more potent than a large supply frequent excretion of the titric acid salts, especially to the chronic form. Alcoholic injuries when employed in excess are by most allowed. They are extremely hurtful effect, but they "rather act by exciting a pre-disposition to than as a direct agent" appear rather than occasion pruritic degeneration than the more
The scarlet fever is undoubtedly acts as a predisposing cause, but in such institutions when a predisposition is established, they may be the immediate causes. That which occasioned the Cordicase term apparently predisposes to the renal, but there can be little doubt that any obstruction to the circulation, causing congestion, may lead to the affection of the latter, becoming confirmed.

In some persons certain medicines taken internally, or even applied externally, appear to have the effect of predisposing to, or exciting, renal disease. Mercury is one of those referred to by Rees (as before mentioned) gives particulars of 15 cases in which mercury was administered 1 line a day, would seem to infer that it never causes or predisposes to, the subject of our remarks, but in such persons we cannot reject it, & besides he does not show, that Mercury
rep, did not act as a predisposing cause. As we explained above, it must still be admitted as sometimes acting as a cause.

The disease having become manifest after some recurred about the lungs, they are generally enumerated, among the causes, but it seems likely that they only excite it when the disease has been latent; or it may have been that other causes occurring at the same time with the reception of the flow, such as exposure, or excess in spirits, the origin is rather the assigned to one of the latter, than to the injury done, by the former.

The acute form, seems when not soon cured, to become chronic. The chronic, as above hinted at, may become acute, an exciting cause having been exerted.

Lastly in thinner constitutions, after the exposure of lungs which have been discharging pus, for some time, local symptoms have speedily presented themselves. One or two such cases have been observed by us, but the occurrence, is rather hinted at, than established, for the means of observation were imperfect.
Treatment.

The great success of surgical treatment over medical in inflammations, consists in this, that not only does the surgeon see the part he treat, but is able to cut it completely by its seat. But in medical cases, rest of the part cannot be obtained. The heart cannot be stopped, nor the respiratory processes delayed, without injurious even fatal consequences. No one can the function of the kidney be dispensed with. What plan of treatment should be adopted? The following appear the most generally received. It may be begun by the application of leeches or blisters, perhaps cupping. The patient is kept in bed, reaching the kidney as far as possible by keeping the other excreting functions exercised. But whilst pursuing this treatment, the diet must be restricted, carefully avoiding all such articles of food as are likely to increase the solits in the urine. Anodynes, by some are much approved of. The best of them seem to be Opium given in the form of suppository, or...
or direct powder, and antimony, a combination recommended by Dr. Johnson. He also advocates the employment of the hot air bath, the advantage of which being, that the patient may have it, when in bed, his Muscles protected from the danger which may follow exposure.

Mercury, is not recommended, indeed it is rather to be avoided. It that in a reason, first because it appears only to have a hurtful influence on the kidney, I secondly because the patient is easily salivated. An explanation of this has been attempted, previously. Such treatment will in most cases cure, or favorably influence, but should the case tend to the chronic form, or should we have suspicion of a chronic affetration being latent, our efforts must be directed, prevent its establishment. The diet must be regulated, the food should be nutritious, but not in excessive quantity, that can be readily digested, stimulating spirits, drinks must be avoided. The best beverage is water, bitter beer may be permitted. The clothing must be warm, a quietude of mind seldom
enjoined—Exercise but not violent may be permitted. Lea voyagers are said to attend sometimes by beneficial results.

Applying over the locus, dry or the small extraction of blood, appears to procure, in cases not very old, counterirritation, or the same preparation may be employed. Although there may be no bad effects, still it will perhaps be better to avoid the employment of counterirritatives. If the disease is suspected in persons, in whom a chronic discharge has been stopped, the introduction of a jejunum may be necessary, according to the rules of this appears to be the best method of exciting a counterirritant effect.

Mr. Johnson recommends the Mr. Ferris in this respect, and qualifies his recommendation by 2 reasons. The iron tends to decrease coloring matter in the blood, and exerts an astringent influence on the kidneys. The would have thought if the kidneys were eliminating a poison the latter effect would not be desirable.

The treatment of the complications of rheumatical nephritis does not differ
from that, if the disease at other times, but their extreme obstinacy, must always be borne in mind. The only complication to which shall be dwelt on, is Drospy.

Every one, has paid, any attention to the subject, is well aware, that although diarrhea continues for days, seven weeks, it does not appear to be followed by the beneficial effect of lessening the amount of serum effusion.

Perpetual pain accompanies this state, sometime attended by good results, but very frequently afford no relief. Nor does the diaphoretic Plan of Treatment, seem to afford, a much better result. Indeed, the adenomyomatous state of the integument appears to prevent then as it in being developed. Strangely enough, they excite an increased discharge of urine.

Dr. Johnson supports the purgative practice, the comments. He recommends Elaterium in 4s to 1/4 fluid ounces. Are the objections in the text correct? Is it not the practice in inflammations else where to apply stimulants, with beneficial result. Thus Nitrate of Silver is applied, the Conjunction of Mercury is exhibited.
exhibited in hepatic torpidity, nor is their effect here, such as would on merely theoretical grounds appear, and instead of causing injury, they generally do good.

Many diuretics have been employed, but probably the Bi-carbonate of Potash is as useful as any other. The effects of digitalis appear to be uncertain, but when it acts it affords much relief. The strong infusion of digitalis, as recommended by Dr. Christison, applied externally, has a wonderful effect, in some cases, causing diuresis when other means have failed. Other diuretics might be mentioned here, it is not considered unnecessary to dwell longer upon them.

We conclude the treatment of serous effusion, in phthisis by somnolency, that could we be certain of the effects of acupuncture, it might be often employed than it is, but as there occasionally results, erythema, or even alarming, after the injection, it is generally withheld until Purpuras, Leukorrhoea, Acinetics, have failed.
Chap. IV
Stearosis of the Kidney

That form of renal disease to which Gluge first applied the term stearosis—generally known as fatty degeneration of the kidney—demands a few inquiries into its nature.

It is a state characterized by an albuminous impregnation of the urine by the presence of tubular casts always more or less loaded with fatty matter in the deposit.

It has been shown that nephritis is also characterized by an albuminous state of the urine, the presence of peculiar tubular casts in the sediment, and that it was ushered in generally by symptoms of inflammatory fever preceding it. The definition adopted we endeavored to prove it by a true inflammation.

The stearotic form is also characterized by the presence of the renal secreting cells in the deposit, but they are not as they appear in the inflammatory. Then they may be tubular, little enlarged or may even be of nearly normal shape, or may be in a partially developed state. In
ulcerosis, the epithelial cell is found to be very much enlarged, the wall is entire flattened. The interior is filled with fatty granules. The form is more or less rounded globular. The cells may either float free in the sediment or are entangled in the tube casts. These cells coincide with the compound granular cells of tubules.

The disease is further characterized by the urine being coagulable to a considerable but varying extent, by the specific gravity being considerably lowered. The amount excreted differs, sometimes, but little from the standard of health, again it is decreased but at another time may even be present. At first the urine is pale generally, than in health, it is clear; does not deposit much sediment, after standing. But as the case advances the amount of deposit increases. The urine is pale, but is not perfectly transparent. Its appearance is to speculate "that with the urine at the bedside is the patient in bed." A glance at the face is sufficient to indicate the experienced eye the state of the kidneys.

From the blueness of the deposit, the tube casts mentioned above, as characterizing the disease during...
during life, are observed with difficulty in the early stages but in advanced cases when the deposit increases, they are more readily seen. As the case progresses the casts appear to become shorter.

The frequency of micturition is increased. The patient having desire forty times in the course of the night.

The disease more over, is attended by a well marked leucoplakocytic white countenance by dry and anasarca. Skin by Asites, sometimes to an considerable extent. In the latter, the escape of the serum is the result of the disease & a symptom or sign of the altered state of the blood & as the actual diminution in advance is the more likely to occur.

In the blood we find, that the coloring matter is reduced greatly. From the standard of health that it is more watery, the amount of albumen being very much lessened. The presence of urea in it, bears a proportion to the amount excreted. Thus if the proportion be low (of the urine) the ratio exception increased an amount of urea, may be eliminated but little eight of that in health, but if the amount of urine secreted is smaller than natural, then the
Prof. Leitchison on "Granular Degeneration of the Kidneys" Edin. 1839
area can be detected in the blood, for our knowledge
of the state of the blood we are indebted to Dr. Ellis's
careful experiments & observations made
several years ago.

The Digestive Liptum sympathizes. There is
Anorexia, Want of Epigastric uneasiness or
Pain, passing round to the loins. There may
be obstinate diarrhoea, or vomiting, the one,
sometimes alternating, with the other.

There is great Debility, recession of
the latter may be marked by the lividity associated
particularly as the face is liable to come edematous
when the recumbent position is assumed.

When the close of the disease, the patient
is restless, fretful, or lies inclined to dote on
may ultimately die encrenet

The desquamative Nephritis was
mentioned above as a true Inflammation, it may be asked:
Is not Anorexia also an inflammation? It is charac-
terized by the same signs, a constant draining of albumin
and presence of glistening tube casts, but in reply the
question is this an inflammation? & if so is it an
exudation of Animal Lignin Deposition

may be put.
To these questions, the following reply may be given, that all points considered, the state of the urine bears evidence rather of effusion, than of accumulation of ligneous tannin, and secondly, if the first answer be denied, that whether effusion or exudation, there is no evidence of an exudation of normal ligneous tannin. This is demonstrated not only by chemistry, but by the very appearance of the fibrous cylinders. In fatty, or a state which itself shows, that the "ligneous tannin" is not normal.

The difference may occasionally be well seen. For some time the casts contain not a trace of red. But slowly as the chronic disease advances, itreact upon the blood, alters its constitution, renders it insolvit in fact, a change begins to be observed, in the character of the tube casts; gradually, one by one, they become more tannin fatty, or a temporary mixture, must may take place. The epicondylally, for a time the casts again become very, or it may be even inflammatory,
Having now endeavoured to show the non-inflammatory nature of the disease we proceed next to review the morbid appearances presented by the kidney at least.
Morbid appearances observed in the kidney after death.

These vary according to the period of the disease at which death happened. Thus, if the case lasted but of short duration, the organ may be found enlarged, of soft consistence, broken early, and Irene made externally, as well as internally, congested. As the disease advances, the kidney shrinks, and canes less. The surface is not congested, but in the contrary, is of a light brownish-yellow colour, sometimes as pale as ‘tea-leaves’, with some of the renal vessels injected, on its surface, in still further advanced cases, the placoid, losing its normal shape, becomes lobulated, approaching the form observed in the lower animals. In this state, the organ is increased in hardness.

Internally, the changes correspond, those observed externally. Thus, in recent cases, the organ is full of blood. The width of the arterial part is increased. This presents the peculiarity that it is ‘eminence of injection’.

In more advanced stages, the internal or outer face
When the external surface, the capsule, is touched, or when the finger is passed over the cut surface, it is not smooth. An idea of roughness is communicated. As the disease progresses, the accreting portion diminishes in size, until at last it is almost entirely destroyed. The kidney not only feels softened, but distinct prenations of varying size are seen. But only at last is the cortical texture destroyed, but this panulare deposit apparently occupies its position even extended into the tubular part. But this latter structure continues for long time unaffected.

On examination, by the Microscope these prenations are seen to consist of fatty particles, either contained in the enlarged epithelial cells, which have escaped from the urinary tubules, or the particles may be free, enclosed in cells. The fibrous tissue surrounding the tubule is sometimes increased in amount.

It was formerly stated that the fatty prenations might be due to changes in the albumen contained in the effused serum. The opinion may also be entertained, that the longer the disease continues, the more
the more likely is the steatosis, to increase. For it may be supposed, that this fatty metamorphosis takes place, only in the Albumen which escapes from blood, or a morbid state of that which is contained in the epithelial cells, probably entered them as a fluid, after which the fatty changes. But this is a subject on which further information is required. It is stated improbable.

The morbid anatomy of an acute steatosis has been described above. But it may be added, that it is by no means a common form, that form of renal disease, being essentially chronic. It frequently supervenes after inflammation in the organ, and may also arise chronically, without any previous inflammation; being traced, but we are inclined to the belief, that the greater number of cases have at some time been preceded by chronic or acute desquamative nephritis, more or less severe. That the morbid state of the blood is thus first caused.
Causes.

Under this head the causes of this disease have to be considered. Hemorrhage - the cause caused we may avoid it. How much desire would be decreased. As in considering the inflammatory condition of the kidney, the causes were divided into predisposing & exciting - so are they treated of here.

What are the predisposing causes of this ovoid renal state? In this it is plain that most of attention should be directed. All agents whose action is to chronically deteriorate the blood, act as predisposing causes. Thus the abuse of alcohol, spirit, the albuminous diathesis, syphilis, or mercury, (although its action has been doubted by some), and chronic affections, cannot but act as exciting a predisposition to interstitial.

But of all diseases, that which has formerly been noticed, as "decompensative nephritis", appears most liable to be followed by hemorrhage of the kidney - and causes shock tend to excite an inflammation of the cortical substance, will, according act as predisposing to "fatty degeneration".
After what has been said above, the exciting causes will not be dwelt on. This is not easy to trace back to any agent, nor from the nature of the disease, does such seem the necessary. But during the course of the affection, the effect of such a cause as cold, or abuse of alcohol, is speedily manifested, by the symptoms arising, constitutional and local, assuming a more active form, a more susceptible participation of the system, in the local lesion.

Course & Complications.

It has been remarked above, that stenosis of the kidney, is a disease which by its local action, deteriorates the fluid, so reacts on itself. From this interest may be inferred, that the longer the duration of the affection, the less is the likely good of recovery, and it may be here remarked, that when
that when the renal lesion has, for some time been chronic, has assumed the chronic character, the prognosis is exceedingly unfavorable. Indeed it may be said, the question is, how long will the patient be able to resist the exhausting effects on his system? But there can be no doubt, that sometimes, the patient is restored to a certain amount of tolerable health, which may continue for several years, if due precautions be taken.

In such a disease as this, sooner or later, secondary complications appear. Of these, affections which precede and accompany after what has been stated in a former chapter, no notice will be taken. But of those which depend on the local lesion a few words are required.

The appetite becomes impaired, the patient complains of thirst, day after day, he associates. The secondary disease, participate in the obstinacy of the primary, this appears the owing little fact, that every surface which is available is compelled, part were by the floor, the cornice, or covering one. This occurred.
remark applies more especially, but not entirely, to the mucous membranes, but that the serum also excrete is proved, by the fact of urine being frequently found, in the fluid of ascites.

Vomiting, is one of the commonest complications. Very little other food may be retained, but tea. During the continuance of the vomiting, a large quantity of water, may be drunk. May this be a provision of nature intended Ad fast, the cost of the vomit, and from all expectorated matter, which may be adhering, bit irritate it. Thus, to remove the cause of the vomiting.

Food should be given in small quantities, it ought to be nourishing, such as steak, strong beef-tea and jellies but the latter should not be so sweet as they generally are for the Patient soon tires of them, and they even seem to irritate thirst.

In some cases, the Patient desires peculiar kind of food, of course it remains, with the medical advisers to determine whether they are to be supplied or not.

From what has just been said, in the cause of the vomiting, the employment of medicines...
to arrest it, it will be perceived is rather doubtful, but in some cases, it will be necessary to give them Laudanum, Hydrocyanic acid, Hyoscymus, or Bismuth Powder, or the so-called Hop. The medicinalis, may all be tried in turn for, to keep up the effect frequent changes of the medicines are necessary, but those for once tried may be resumed. What affords any hope will very likely be of no use to another.

Diarrhea may next be mentioned as a complication. It will generally be found as obstinate as the vomiting. It has been else where observed that although the diarrhea continues for long the stools are frequent, copious, floating, while the ascites remains unaffected. This is of importance as regard treatment. Seldom are the intestines found ulcerated but they are so occasionally, that the extent is so slight as to fail to account for the diarrhea. It must therefore be attributed to the same cause as the vomiting. If profuse were necessary, we have it, in the fever. That area has been found upon the mucous surface of the Intestine. If the diarrhea be not diminishing the
the ascites, it is doing harm, for the constant purging will weaken the patient. It must therefore be modified by astringents, such as astringent, perhaps best exhibited in the form of a deposit, or it may be combined with an ant of lead. It may be given in pill by the mouth, or as enema with starch; with fulminate of mercury, or nitrate of silver, may be tried. The injection of nitrate appears like a more valuable astringent than its employment would lead one to believe it to be, or the subsequent Scarab. may be tried. Many other astringents, such as salic acid, arsenic, may be added to, should the other fail.

Ascites — After what has been said in previous pages, we have but little ground on this complication. In many cases indeed in all it is the source of constant uneasiness, not only by the inconvenience which the swelling itself occasions, but because it frequently obstructs the descent of the diaphragm. It impedes respiration. To the removal of this complication most of our efforts are directed in the treatment of ascites.
Diseases of the Kidney by J. Owen Rees M.D.
London 1850
The urypy, anasarca, are of that kind which depends on a watery state of the fluid. The natural relation between the blood and the tissues being overcome, the resistance presented to normal serum escapes from the vessels, being lost, the fluid passes at first from vein to accumulate in the serous cavities or cellular tissue of the body.

A peculiarity of renal anasarca is, that it is often seen to affect the upper part of the body, occasionally the face, sometimes the eyelids also becoming edematous. But when the state of the blood is considered, it cannot be wondered at, that no tissue seems free from the liability to become edematous. This extremely probable, that in advanced cases, the serum of the blood passes from the renal pelvis into the urine, thus making the urine albuminous, just as the fluid passes into the cavity of the peritonaeum. No doubt, an effusion happens at other periods in circumstances just as Resort mentions that the urine some times becomes albuminous in
The last hours of life - The above may suffice to explain the phenomenon observed by Dr. Rees, but it is a point on which we cannot speak from personal observation. The treatment of apoplexy will be delayed for the present.

The patient may die exhausted. The cause of the connection of diseases or symptoms, whether it's obstetric, or the last hours of his earthly career, may be terminated by convulsions - in a state of delirium, growing insensibility, leading to a state of insensibility, or he may die convulsed without symptoms of delirium. Again, the coma may have been preceded by dreams, the patient being quiet, intolerable of light, noise, irritable, when disturbed, or spoken to.

The question as to poisoning by urea carbonate of ammonia has been formerly discussed. We shall only here indicate it, but it may be added that the urea symptoms are sometimes greatly due to that which causes apoplexy. The arms appear, who can doubt, occasionally, this, all the perhaps insufficient to cause delirium or coma.
limb, may, never, the less produce, dropstines, irritability, or convulsions.

The cardiac complications, may also in some cases, have an effect, on the central circulation, as it acts prejudicially in other cir-
cumstances, much more is it likely to do so here. There may even be disturbances in the.

Another view has been proposed, that on account of the changes in the blood, it may be less prejudicial, as a stimulus to the cerebral lobes. Hence the dropstines.

May it not be, that all of these explaining, may, each, with them, he received, there is con-
iderable variety in the symptoms. May there not also be diversity of cause?

\[\text{In most the effects of the nervous system.}\]

\[\text{No evidence of Paralysis is found. That is,}\]

\[\text{When the patient is dwurray, inclined asleep, at that time the use of extremities does not as}\]

\[\text{Near the mouth, if at all, interrupted. Midnight,}\]

\[\text{for some important note. He view that one of the}\]

\[\text{Cerebral}\]
Cerebral symptoms are due arteriosus effusion.

Treatment of Steatorrhea

It now only remains, to take a short review of the Method of Treatment, the adopted in that form of "Stomus Brightii" Steatorrhea.

A combination of treatment appears to be necessary. That which is tonic and does not expose the patient to vicissitudes of temperature, is useful. Attention should be paid to the skin and bowels. To the former not only that the renal organs may be relieved, but that the intestinal canal may be aided in its assumed function. Diaphoretics may be prescribed but it will be frequently found that they do not act as
as such, and as was formerly remarked their exhibition may then be followed by a diuretic effect. The diet, should be carefully attended to, nourishing but not stimulating. The avoidance of fat appears the incorrect. It has been endeavoured above, to indicate, that the faulty state of the kidney, is partly to be attributed to the morbid state of the circulating blood, it is improbable, that the condition of the organ is one loan excess of fat in the blood. What is wanted therefore is, a healthy condition of the blood. This cannot be obtained, on account of the retained secretions, circulating in it. But if placed in a state of fair solution, the fluid will still further deviate from the normal state. The want of a proper substance, in the tissues, is further evidenced by the emaciated appearance, presented by the patient. As much nourishing food as can be easily taken, in small quantities, often, and as much as is necessary for health, though not the least extent seems to be what is required, under diet. General bleeding is seldom called for in this affection, but coughing over the bowels may be attended by beneficial results.
Dry-cupping, is occasionally of service. The former should be employed when the urine becomes very scanty, or when a tendency to Conrad is evinced.

With regard to counterirritants, a word or two may be said. In advanced cases, their employment is not succeeded by relief. The kind of case in which benefit may be expected from their application, is that, which is evidently becoming daily more acute. Heuristics (as evidenced by the above cases) subsequent to an attack of the inflammatory form of renal disorder.

Our efforts are chiefly directed, towards removing the diarrheal effusion. The modes by which it is proposed to affect this are three in number. 1st by Purgatives, 2nd by diuretics, 3rd by Laxatives.

Sometimes the one, sometimes the other may be successful, but the most confidence it appears is to be placed in the last. The 1st often exert their action without producing any sensible effect on the effusion. The 3rd are very uncertain in their action.
but in some hands, appear to have been pretty successful, especially when the form of dry hot air bath has been employed. The internal dietaries if there is assurance to any extent are generally unsuccessful. When used, they should probably follow the exhibition of diuretics when the effusion is beginning to diminish their effect on the skin will then be more active.

Of the Purgateous Bicarbonate of Potash in Camphor appears to be as successful as any or Saltpetre in small doses may be prescribed, but as this has a powerful depressing effect, it will in many cases, be contraindicated, or when administered, the patient must be watched.

Of the Diuretics, the Bicarbonate of Potash is one in very general use, it appears to be tolerably successful perhaps most.

Quinine and Digitalis, do not seem so certain, in this, as in other forms, of dropsy. Mercury and digitalis acts pretty well, but the former is contraindicated by the peculiarity of the system in this disease. The speed of improvement under its specific effect of the drug.
Digitalis may however be united with the teamy Iacon. - successfully. No.

Digitaline, is not always certain in its action. As a diuretic, it has not appeared to be as efficient, in fact, as some of those mentioned. But by other observers, the result following its exhibition, has been satisfactory.

The external application of a solution of digitalis has been introduced by Dr. Christian. Its application is favorably spoken of by others as well as by the author of the plan of treatment. It is one of those remedies which in obstinate cases may be found to afford relief. A comparison to in some cases has been found successful, when other means have failed.

It is somewhat strange, that benefit may follow the administration of astringent medicines, yet marked relief. But not of a lasting nature has occasionally been found to result, from taking digitalis orally. As a mode of action probably is, that by its effects on the walls of the vessels an
An astringent tincture is produced, sufficient to prevent the passage outward of albumen whilst the escape of water is not interfered with.

In concluding our remarks on steatorrhea, we reflect that our chief reliance is to be placed on nourishing diet and the use of diuretic medicines. Hope that the time may come when our treatment will be radical, not palliative, as must be confessed the present system is.

Conclusion.

We have now shortly considered some of the chief causes of renal albuminuria. Into minute details, our limits precluded us entering. Many points of importance have necessarily been left untouched; others passed with a mere word whilst regretting this, we will do not see how it could have been avoided without swelling this paper to an undue size. A few words are necessary for the repetitions which occur, but these from the nature of the subject readily, could not be avoided.

In this paper we first endeavored to...
show. The numerous causes of albumen in the urine, we afterwards dwell at some length, though not equal in the importance of the subject, on the kidney as the most important of those causes. We pointed out that there are inflammatory or inflammatory forms of renal disease. An endeavour showed how an inflammatory attack at first acute, may become chronic, or how it may become chronic, again how a chronic condition of the kidney may result. We also tried to point out that the latter form of renal disease appears the due in great measure, the morbid state of the circulating fluid. The distinction which may be deduced from the fore going observations is that the inflammatory form of disease is most frequently met with in Rheumatic constitutions, whilst the fatty or stearotic is found in the chronic. The prognosis of the one is poor, that of the other from the depraved state of system induced is far from favourable. The forms of renal disease causing albuminuria are mentioned by authors, but we have not had much experience in them.
In addition to the authorities mentioned above, others have been consulted. Bright, Glaze, Pokitansky, Jones, Bezie &c.
we have not dwelt on them. Dr. Johnson mentions a "non descriptzvate" disease. We have not seen, nor recognised the disease, but from Dr. Johnson's description, a separate name first appears of a scarcely called for.

Respecting the many inaccuracies and deficiencies of this paper, we conclude our remarks on Albuminuria.