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CLINICAL LECTURES

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UNIVERSITY COLLEGE HOSPITAL.

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LECTURE II.

Anasarca—Albuminaria—Morbus cordis—Pleuritis—Pneumonia—Epilepsy—Phthisis—Symptoms characterising dropsy from Bright's disease—Secondary inflammations unattended by active symptoms—Epilepsy accompanied by dulness of intellect and irritability of temper, another effect of Bright's disease—Urea found in large quantity in the blood—Causes—Treatment—Cure of the dropsy—Sudden disappearance of friction sound—Diminution of the quantity of urea in the blood, and removal of the head symptoms.

Samuel Bishop, aged seventeen, admitted Tuesday, January 17, 1843, under Dr. Taylor; a travelling case maker, of stout conformation, pale complexion, and phlegmatic temperament, single, of rather irregular habits, getting drunk occasionally; lives generally pretty well, resides in an open, dry situation; parents living in good health, and liable to no particular disease. Patient states that he is generally tolerably strong. Six weeks ago was attacked with severe pain in the right side, for which he was bled to syncope, afterwards blistered and salivated. He ascribes the pain to a severe blow which he received on the side from the handle of a truck; the pain came on in lancinating stitches. When the gums became less sore he went out to see his medical attendant; a week afterwards his mother observed that he became very drowsy, and the dropsy, which had previously shown itself in the face and eyelids, increased and continued to become aggravated up to the time of his admission into the hospital. Has been the subject of syphilis, for which he was treated by mercury and cured.

Present Symptoms.—Skin is rather above the natural temperature; has very little swelling of the legs and thighs; little swelling of scrotum; abdomen slightly œdematous as well as the back and loins; considerable œdematous swelling of the face and upper and anterior part of the chest; expression of countenance exceedingly dull; intellect very obscure, so as to be unable to give correct answers; face and general surface very pale; breathing rather oppressed; has some cough.

Physical Signs.—Distinct double friction sound on the lateral and anterior portion of right side below the nipple; above this the respiration is nearly healthy; some sonorous ronchus on left side; left lung behind: double friction sound over the lower two-thirds, and feeble respiration; the lower half of the right side behind yields a rather duller sound on percussion than the left; no pain of the right side on coughing; no œgophony; vocal vibration stronger on right side posteriorly; heart's impulse too strong, felt over too

large a surface; distinct bellows murmur with the first sound heard at the apex only; pulse 88, rather sharp, moderately full; bowels open; tongue not much coated; appetite not very good; no thirst; urine of specific gravity 1010, acid, pale, and albuminous, depositing on heating a fourth of its bulk of albumen.

Powdered jalap, a scruple;
Bitartrate of potass, three drachms;
Powdered ginger, five grains. Mix. A powder to be taken every morning.

To be cupped beneath the right scapula to eight ounces; middle diet.

January 20. Urine unaltered, of specific gravity, 1012; the friction sound very distinct at 11, a.m., but has now (2, p.m.), quite disappeared, as has also the vibratory motion given to the thoracic walls; bowels opened three or four times daily, stools watery; from three ounces of serum of blood obtained by cupping, Mr. Garrod obtained a considerable quantity of urea, in the proportion of one grain and a half to the ounce, or three grains of the nitrate of urea to the ounce.

23. Intellect much more acute; face less swelled; less swelling of the body; medicine purged him freely.

25. Hears more sharply; right side behind duller than the left; no friction sound.

27. Urine acid, more albuminous than it was, specific gravity 1010, of a pale pink color; three pints passed during the last twenty-four hours.

30. Has some headache; intellect clearer; the powder purges him freely.

February 1. Had two fits last night, which seized him on attempting to get out of bed, and caused him to stagger halfway down the ward, when he fell. He could answer questions, and complained of much giddiness and weight in the head; when he returned to his bed he quietly fell asleep. At one time he was quite insensible for about five minutes, and foamed a good deal at the mouth. The aspect of the countenance is very stupid, quite pale, and the surface of the body cool; speaks very indistinctly, as though the tongue were too large for the mouth. States that before his admission into the hospital, and within the last two months, he had one or two fits, he cannot say which, similar to those that attacked him last night. His parents, however, give a different statement; they affirm that he never had fits, but about two months before his admission his temper and manner were much altered; he would, though but the moment before quite tranquil, suddenly attempt to bite and scratch those about him. This paroxysm of irritability would last but a few minutes, and all was quietness again. His memory appeared to fail from this time; tongue furred and indented; bowels relieved three times daily.

3. Feels a good deal better; no pain in the side, and no cough; has had no more fits. Expiration

louder under the right clavicle; inspiration more feeble; there is dulness under the right clavicle and also behind; urine albuminous.

6. Is better; the general aspect of the countenance is more lively, and the articulation clear; there is no swelling of the legs; tongue coated; bowels relieved four or five times daily; no pain in the loins; there is some dulness behind on the right side. To be cupped to six ounces over the region of the kidneys. Urine of specific gravity 1009; there is a good deal of albumen, but rather less than there has been.

8. Still a small amount of dulness on the right side behind; urine specific gravity 1010, five pints and a half made in the last twenty-four hours; the quantity of urea in the serum of the blood is less than before—one grain to the ounce, and two grains of the nitrate to the one ounce of serum.

13. No swelling of the legs; the quantity of urine made in the last four-and-twenty hours five pints and a half, and the quantity of albumen appears rather increased. Omit the powder of jalap and bitartrate of potass; take tincture of cantharidis, fifteen minims, in an ounce and a half of peppermint water, three times a day.

15. Since the alteration in the medicine the quantity of urine is rather increased; appetite and general health are still good; sleeps well.

18. The specific gravity of the urine 1012; quantity not quite five pints; feels stronger every day; bowels open; pulse 88; much thirst.

20. Feels much the same. Let him have every night a hot air bath; omit the tincture of cantharidis.

21. This morning the urine is rather diminished in quantity, being but four pints and a half; bowels are always open once a day, and sometimes twice; specific gravity of urine, both before and after the bath, nearly the same, 1012.

22. Quantity made in the last twenty-four hours is four pints; the specific gravity of that made this morning 1012.

24. Quantity of urine this morning is five pints; specific gravity 1012.

25. Four pints this morning; specific gravity 1016, before the bath of this morning 1012; that made in the morning contains more albumen than that passed at night.

27. Specific gravity of urine passed last night 1015; of that passed this morning 1010; the quantity of albumen is much the same, but less than it was at first; quantity made is four pints; he perspired freely last night; the lower part of the right side is duller than the left, but not so much so as formerly; respiration of the right posterior surface is audible to the bottom of the chest, feeble on the right lateral surface; the right appears duller beneath the clavicle on percussion; both inspiration and expiration are strongly bronchial towards the right shoulder; the vocal vibration is stronger under the right than under the left clavicle.

March 2. Specific gravity of urine 1014; quantity four pints; the deafness of which he complained a short time ago is much the same.

3. Albumen in the urine is rather less; his appearance and intellect are much better; towards the sternal end of the clavicles the right is duller; above the clavicle there is no difference, but the sound is too

dull above both; the right supra spinous fossa is duller than the left.

6. Specific gravity of urine passed last night 1015; that passed this morning 1013; both acid; the quantity is four pints; they both contain an equal quantity of albumen; that passed last night is higher colored than that passed this morning; pulse 104; does not complain of anything; the bath does not make him sweat much, and it is to be changed for a vapor bath every night.

7. Perspired very freely last night in the bath; specific gravity of urine this morning 1012; before the bath 1014; albumen is not diminished.

8. He thinks the bath has diminished the swelling of the face; the quantity of albumen is the same, though the quantity of water made is less—three and a half pints.

9. Specific gravity of the urine before the bath was 1015; since, 1012; quantity continues less, three and a half pints; both acid; feels very well and in good spirits. For some time past the aspect of countenance has been much improved, looking clearer and more healthy, and indicative of much more intelligence.

CLINICAL REMARKS.

Symptoms and Diagnosis.—Although there was very little oedema in this case, it was quite obvious that the patient was suffering from dropsy, which made its appearance in the face after exposure to cold whilst under the influence of mercury. This puffiness of the face is frequently the only sign of dropsy, and being unattended with pitting on pressure is often evident to the friends of the patient and those who are in the habit of seeing him before it is recognised by the medical man. There were, besides, some chest symptoms, slight cough, and dyspnoea. There was a distinct friction sound heard on the lateral and anterior portion of the right side, at the back part a double friction sound, also on the right side. In the left lung, sonorous and sibilant ronchi indicated the presence of bronchitis. The impulse of the heart was increased; it was felt over too large a surface, and there was a bellows murmur heard at the apex.

What was the cause of the anasarca in this case? The following circumstances made it appear evident that it arose from Bright's disease. The urine was pale, its specific gravity low, 1010, and it contained one fourth of its bulk of albumen, and the albumen was constantly present. Albumen is often found in the urine, temporarily, in many cases, but it is this constant presence of it which enables us to say that the acute form of Bright's disease exists. The face, also, as well as the general surface of the body, was very pale; this is another symptom of this form of renal disease.

He had also disease of the heart and lungs; but this did not give rise to the dropsy, which was recent, whereas the disease of the heart was of long standing, and there were no signs of obstructed circulation—as great dyspnoea, lividity of the lips, which we find in cases of dropsy from disease of the lungs and heart. The dropsy also was not limited to the most depending parts, but affected all equally, as much the face as other parts. In the absence, therefore, of any other adequate cause of the dropsy, these circumstances lead us to ascribe it to Bright's disease. With respect

to the heart, the strong impulse indicated hypertrophy; and that this was accompanied with dilatation, was evident from the extent over which the impulse could be felt, and also from the well known fact that simple hypertrophy is a very uncommon affection; the murmur accompanying the first sound, and heard at the apex, indicated regurgitant disease of the mitral valve. The disease of the heart appeared of some duration, whilst that of the lungs was probably recent, and of an inflammatory nature; whilst bronchitis existed in the left lung, in the right lung there was another disease. The double friction sound heard over the lower two-thirds of the chest, behind and below the nipple in front, proved the existence of pleurisy on the right side; but there was no pain of the chest, no *ægophony*, nor any sign of serous effusion, which would, of course, have prevented any friction sound. We found also bronchial respiration towards the right shoulder, and the vesicular respiration feeble in the lower part of the chest behind. These signs, with dulness on percussion, and increased strength of the vocal vibration, showed condensation of the lower part of the lung, which appeared most likely to have been caused by pneumonia. This might have arisen from the blow which the patient stated he had received, but the account and dates given by him could not be depended upon; it appeared more probable that it was a consequence of the disease of the kidneys, of which we know pneumonia is not an uncommon effect.

Now, although there was well-marked pleuropneumonia, yet there was almost no cough, no pain in the chest, no crepitation, the pulse was only 88, no expectoration is mentioned, and the skin was not hotter than natural, so that there appeared to be two secondary inflammations, the result of Bright's disease unattended by active symptoms.

In addition, there was another secondary affection, and this makes the case one of peculiar interest. The patient's intellect was remarkably dull; this appeared to me at first to be natural stupidity, but there was a degree of stupor, as well as some deafness; he could be roused, which a naturally stupid person could not. We learned also that he was not so formerly; hence we came to the conclusion that this was another effect of the disease of the kidneys, generally supposed to depend on the poisonous influence of urea contained in the blood. Afterwards other head symptoms made their appearance. According to the report on the 31st of May, he fell down, foamed at the mouth, and was for about five minutes insensible; he then quietly fell asleep. The next day the face appeared quite pale, and the surface cool. According to his own statement, he had had one or two fits just before his admission of a similar kind; but his parents state that he had no fits, but great irritability of temper; from being quite tranquil, he became suddenly so violent as to attempt to bite and scratch every one near him. As this did not appear to be his natural character, there was every reason to suppose it arose from his illness. There could be no doubt that this was epilepsy; there was insensibility after the fit, and all the usual characters of this disease. Before the fit took place, the serum of the blood had been analysed, and found to contain a considerable quantity of urea; each ounce of serum contained one grain

and a half of urea, or three grains of the nitrate of urea. This was the cause to which the symptoms were to be ascribed, and it was proved to be a *vera causa* really present, whether the true cause or not.

Here, therefore, is a series of effects referable to the head:—1, Change of temper; 2, dulness of intellect, a degree of drowsiness and stupor, and dilatation of pupils; 3, epileptic fits; all these effects caused by the disease of the kidneys, and have been described by writers on this affection, and all are mentioned by Rayer in his elaborate and detailed account of the disease.

On the 6th of February he was cupped again, after the head symptoms had diminished, and the aspect of the countenance improved. The blood was then found on examination to contain a smaller quantity of urea, each ounce of serum yielding only two grains of the nitrate, or one grain of urea. The blood, therefore, still contained the poison, but probably in too small a dose to produce the symptoms; and we know that the blood always contains urea, but in so small a quantity as to produce no ill effects. This agrees with what is observed with regard to other agents, and by no means proves that the urea in the blood was not the cause of the symptoms.

Causes.—It was evident from his appearance that he was scrofulous; his habits also were very irregular, being accustomed to drink to excess, and both these are commonly put down as causes of Bright's disease. He had been affected with syphilis, for which he had taken mercury; this, also, would render him liable to this disease. Again, we have just learned that he had small-pox about four years ago, which might *possibly* have led to the same result, as we know to be the case in another eruptive disease—scarlet fever.

Treatment.—The first object of the treatment was to remove the anasarca. This was attempted by purging him with jalap and bitartrate of potash, and he was cupped beneath the scapula, on account of the inflammation of the lung. Three days after his admission, under this treatment, we find, on the 20th of January, that the friction sound suddenly ceased to be heard. It was very distinct at eleven, a.m., but at two, p.m., had quite disappeared. Since that time other symptoms were observed calculated to excite suspicion of phthisis. There was dulness on percussion under the right clavicle; the sound was too dull above both clavicles, and the right supra spinous fossa was duller than the left; inspiration was feeble beneath the right clavicle, and both expiration and inspiration were strongly bronchial towards the right shoulder.

These are the earliest signs of tubercular deposit; still the presence of phthisis in this case is not a matter of certainty, the signs proving only a degree of condensation of the lung; and in this case there has been chronic pleurisy, which would give rise to these signs, and I have known them frequently occasioned by this cause; but, bearing in mind that scrofula, Bright's disease, and tubercle, so often exist together, we cannot but suspect that to the latter the physical signs are to be ascribed.

In consequence of the treatment adopted the dropsy soon disappeared, his countenance became more lively, and the signs of inflammation and of condensation of the *lower* part of the lung diminished gradually; the

quantity of urea also in the blood, as I have stated, at the same time diminished. He has been kept in the hospital for some time, to see if we could find any difference in the urine. The tinctura cantharidis was tried for a short time, without any alteration; he was then ordered a warm bath, and after a time a vapor bath was substituted, which he is now using, and which causes him to sweat more than the warm bath did; still there is no difference in the quantity of albumen found in the urine. Finding no improvement in this respect, I have been induced to try opium, thinking it might lessen the quantity of albumen, as it lessens the quantity of urea, or the phosphates, or of the urine itself, as in diabetes.

Although the urine still remains unaltered, the appearance of the patient has lost the dull character which was so striking when he was admitted; his intellect also is much improved. This is what we usually see in these cases; the secondary disease and dropsy diminish, but the ultimate result is the same, the patient dying sooner or later.

Since the delivery of the lecture on this case, a great improvement has taken place in the condition of the urine, which, instead of one-fourth of its bulk of albumen, contains only 5 per cent. The serum of the blood also yields much less urea, the proportion being half a grain to one ounce of serum, instead of one grain and a half. This favorable change appears to have been observed whilst he was taking opium and using the vapor bath.

Anasarca—Albuminaria—Bright's disease(?)—Diagnosis between anasarca phlogistica and dropsy from renal disease—Causes of the dropsy—Treatment—Quick removal of the dropsy, and disappearance of albumen from the urine.

William Russell, aged twenty-three, admitted December 7, 1842, under Dr. Taylor. He followed the occupation of a blacksmith till he attained his seventeenth or eighteenth year; since, he has had only occasional employment as a gardener, but has been out of a situation for the last twelve months, and so has suffered privations. No hereditary predisposition to disease exists in his family. Three years ago he got an ague, which lasted for two years; this was first of the tertian, but, at last, was changed into the quartan type. He took, during the greater part of the time, bitter medicines. He has had no other disease, and has not been accustomed to drink.

Present Attack.—A fortnight since he took cold, accompanied by cough; a week after this his feet and legs, scrotum and penis, became œdematous. He ascribes the cough and cold to his having got wet feet, without changing his shoes and stockings. Two days back his abdomen, also his face, became swelled; the walls of the chest and abdomen are œdematous, and the abdomen is hard and swollen; the cellular tissue of the genital organs is much distended; the liver does not seem enlarged; there is no tenderness in the region of the liver; the legs and feet are swelled, and pit on pressure. He complains of a shooting, burning pain in the legs; the face is considerably swelled, but the eyelids are scarcely œdematous; no pain in the head, but feels giddy at times, as, for instance, when sitting up; tongue is furred, but moist; appetite good; no sickness; bowels have not been

open for two days; the cough which he first got still continues. On Saturday and Sunday last he spat a little blood, enough to tinge the expectoration, which was not abundant; the expectoration now is not colored; it consists of transparent mucus; some dyspnoea came on with the expectoration of blood; this difficulty of breathing has not left him, but prevents him from sleeping well at night; respiratory murmur is feeble than natural, and very soft; pulse 60, small, and weak; he makes only a small quantity of urine of a lemon yellow color; the urine is acid, albuminous, and of specific gravity 1024.

Dec. 28. He was ordered—

Powdered jalap, two scruples;
Bitartrate of potass, one drachm;
Powdered ginger, five grains. A powder to be taken directly, and repeated at night, if necessary.
Middle diet.

29. He has taken both powders, and has had three or four watery stools. The swelling of the genital organs, also that of the legs and feet, is much diminished; urine of specific gravity 1030; it deposits albumen by heat and nitric acid, and becomes very red.

30. The cellular tissue of the scrotum and penis is much distended to-day; pulse 68, rather full; respiratory murmur is prolonged and soft; the voice is resonant in the lower part of the chest posteriorly; urine not albuminous; of specific gravity 1026; sounds of the heart are healthy. To be cupped over the region of the kidneys to twelve ounces.

Acetate of potash, two scruples;
Tincture of squills, half a drachm;
Tincture of digitalis, ten minims;
Infusion of juniper, one ounce and a half. Three times a-day.

The powder to be repeated if necessary.

31. He made seven pints of urine from four, p.m., yesterday to half-past ten, a.m., this day.

Jan. 2, 1843. Urine is not albuminous; he has made nine pints of urine during the last twenty-four hours; the swelling is much less in all parts.

3. The swelling is still less; urine of specific gravity 1010; it is made slightly cloudy by nitric acid; this cloudiness is not altered or increased by heat; his cough is much better.

6. Œdema almost disappeared. Omit the mixture.

Tincture of acetate of iron, twenty minims;
Acetate of potash, two scruples;
Water, one ounce. A draught to be taken three times a-day.

His face continues pale; in other respects improving.

11. Complained of giddiness yesterday, which has disappeared to day; no return of œdema; quantity of urine five pints and a half, which is more than he has made for some days past; specific gravity 1010, neutral, not albuminous.

16. Impulse of heart rather too strong; no murmur.

20. Urine specific gravity 1018, acid, not albuminous; left leg slightly œdematous. Increase the tincture of acetate of iron to twenty-five minims.

27. Urine not albuminous, acid, specific gravity 1013.

Powdered jalap, one scruple;
Bitartrate of potash, half an ounce;
Powdered ginger, five grains. A powder to be taken directly.

30. The powder to be repeated.

Feb. 1. Urine specific gravity 1018. Increase the acetate of iron to thirty minims.

3. Feels better; the legs are not swelled, neither is he much purged. The powder to be taken every other day.

5. Improving; urine of specific gravity 1012, clear, and no albumen.

Discharged, cured, Feb. 8, 1843.

Diagnosis.—I did not see this patient at the time of his admission, but it is evident that it was a case of acute anasarca; according to the history of only a week's duration; in the chest there was only a little bronchitis and no disease of the heart; this was not adequate to produce the effect; the attack had followed the application of cold and wet. Now the majority of cases of acute anasarca arising from cold and wet depend on Bright's disease in the acute form. The urine, also, in this case was albuminous; this seemed to confirm the notion that this was the disease, which was the view taken by the house physician, and which I also adopted, without much inquiry. On reviewing the case, however, there are some circumstances noticed in the history which render this opinion less certain.

We find that the specific gravity of the urine was 1024, and two days later 1030; also that the albumen disappeared in three days, and only once afterwards is noticed as being made slightly cloudy by nitric acid. Now these circumstances do not characterise Bright's disease, for the urine should not only be albuminous, but *remain* so for some time; its specific gravity also should be *low*, and not, as in this case, as high as in health; in the earliest form of the disease, however, this latter circumstance is not always present.

If it were not a case of Bright's disease, to what, then, are we to ascribe it? A form of acute anasarca, produced by cold and wet, is described as existing independently of Bright's disease, and supposed to depend on a morbid condition of the cellular tissue, perhaps inflammatory. Of this disease I cannot speak from my own experience; I have seen many cases in the hospital formerly which were called by Dr. Elliotson *anasarca phlogistica*, arising from cold; but I do not know whether the urine was constantly albuminous, and am uncertain whether the observation was made. Rayer says that the presence of albumen in the urine, with more or less rapid development of *anasarca*, characterise Bright's disease, and that no other acute disease presents this character.

My own opinion is, that we cannot easily decide whether this case was an example of the acute form of Bright's disease or of simple inflammatory dropsy. If it were Bright's disease, it seemed to be cured with very unusual facility; if it were inflammatory dropsy, it differed in no respect from renal dropsy, but in the *short time* during which albumen was present in the urine. Is this a sufficient ground for thinking that these two diseases are *essentially* distinct? This seems doubtful; perhaps all these cases are *essentially* the same in the first instance, and that some of them get well, leaving no other disease behind, whilst others, perhaps the greater number, at a more or less early stage of their progress become complicated with disease of the kidney.

Causes.—It appears that he had been exposed to

cold and wet, was not addicted to drinking, but had suffered great privations; and these are very frequent causes of this disease.

Treatment.—Whether the disease be acute anasarca or that depending on renal disease, however important in regard to *prognosis*, makes no difference in the treatment, which is similar in both cases. He was cupped to twelve ounces, and diuretics ordered. In consequence of this treatment the dropsy soon disappeared. The diuretics acted very freely; we find that the quantity of urine was increased from three to about nine pints in the course of twenty-four hours. This was due to the cupping, or the diuretics, or both. On the 3rd of January the specific gravity of the urine came down to 1010, but the quantity was increased at the same time. He was then ordered the acetate of iron and acetate of potash. The dropsy did not return, nor was albumen afterwards traceable in the urine; but in order to complete the history of the case it would be necessary to watch the patient for some months.

CASES

ILLUSTRATING THE CONNECTION OF

CHOREA WITH HEART AFFECTION AND RHEUMATISM.

Maria Batrick, aged fourteen, was admitted into the Westminster Hospital under the care of Dr. Hamilton Roe. For three weeks prior to her admission she had been the subject of chorea affecting in an equal degree both sides of the body. The catamenia had not been established, and she was suffering from habitual constipation. The cause of the chorea could not be traced to any local injury or mental alarm. When admitted the involuntary movements were violent and constant, excepting during sleep; she was unable to retain anything in her hands for more than two or three seconds, and had much difficulty in carrying food to her mouth. Powder of jalap, with aloes, every evening; sulphate of zinc, one grain three times a-day.

2nd day. No marked change in her symptoms; bowels relieved scantily. Continue remedies.

5th day. Some improvement is now observed, the involuntary movements being rather less violent, though still constant. Sulphate of zinc, two grains three times a-day.

13th day. No marked change since the last report. Sulphate of zinc, three grains three times a-day.

17th day. Improving more quickly; the involuntary movements much less violent, and sometimes absent for a few minutes. Sulphate of zinc, four grains three times a-day.

From this time until the fortieth day of treatment, during which interval the dose of the sulphate of zinc had been increased by additions of one grain to thirty-three grains in the day; in the same proportion as the quantity of zinc was increased did the symptoms of chorea become lessened, and at the expiration of the fortieth day she was discharged from the hospital, being quite free from all traces of her former disease and in good general health.

Five days after she had quitted the hospital she again applied for admission. There had been no