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Clinical Lectures on Medicine.
Delivered at the Middlesex Hospital.

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Lecture IV.

I. Case of Rötheln, or German Measles.

Gebr. -- The case of Elizabeth R., who was discharged from the hospital a few days ago, is one that deserves your careful attention.

Elizabeth R., aged fifteen, was admitted into the Middlesex Hospital on April 14th, 1870. She was housemaid in a gentleman's family. She had had an attack of measles at the age of four, and of scarlet fever at the age of six. On the morning of April 12th she had been quite well, and in the evening she had first complained of headache, loss of appetite, chilliness, and running from the eyes. During the following night she had coughed and sputted and was thirsty, and on the morning of the 13th she noticed an eruption on the face, which soon extended over the whole body. The throat from the first had been slightly sore, but there had been no sneezing or cough.

On admission, the girl did not look very ill, but her face, chest, arms, legs, and entire body were covered with an eruption consisting of irregular patches, at many places running into one another so as to form a large red space, but at others quite isolated. The whole eruption presented very much the appearance of measles, but the patches were less crenate in outline, and had nowhere a decidedly papular character. Skin dry; temperature 101°; pulse 132. The patient sneezed several times within two or three hours of admission, and had a slight running from the nose, and a watery discharge from the eyes, but the conjunctivae were not injected, and there was no cough nor bronchitic rales in the chest. The tongue was moist, coated with a thin white fur, and red at the edges, but there was no marked enlargement of the papillae. The throat was still sore; the soft palate and fauces were vividly injected, and the follicles enlarged; both tonsils were large and red, but free from ulceration or membrane. An effuseeptive petechia of the vasa draught was prescribed. In the evening the temperature rose to 103°. The patient did not sleep well, and next morning (April 13th) the eruption was quite more apparent than on admission. The hands and arms it formed a continuous bright redness, like the eruption of scarlet fever; but over the front of the chest it had still a mottled character, although the patches ran into one another much more than on admission. On April 16th the eruption had quite left the face, but was still visible on the legs. About ten or fourteen days previously a second child in the same family had a similar attack.

The ailment from which these patients suffered is not generally recognised as a distinct disease; and cases of it, when they occur, are apt to be dismissed as mere varieties of the common diseases. In order to get the medical attendant into trouble from his inability to determine their real nature. Yet, on the whole, they are not very rare. To explain the pathological relations of the diseases, and to understand the reason of its being called "German measles," it is necessary to depart from the usual custom of a clinical lecture, and go into a little detail respecting the early history of measles and scarlet fever.

Measles and scarlet fever were long regarded as varieties of the same disease. They were first distinguished from variola by Abu Dschafar and other Arabian physicians in the twelfth century; but measles and scarlet fever continued to be looked upon as one disease, which was designated "morbilis." An Italian physician, Philipp Ingrassias, of Palermo, in the middle of the sixteenth century, first described scarlet fever, which he called "rossalia," as distinct from the morbilli or measles. He pointed out that the rash in scarlet fever followed from the commencement of the disease, and was not preceded, as in measles, by an eruption, after which it disappeared, but traces of the eruption were visible till the 19th. He adds: "Nonnulli sunt qui morbillos idem cum rosellia existimant; nos autem scopo distinctos esse aequos, nos- trum autem morbilem in alio locus, quod existimamus; nos autem scorbutum in alio loco, quod inspeximus." The term "scorbutin" is said to have been the vernacular name for the disease on the shores of the Levant, and was first adopted in a medical work by Prosper Mantius, an Italian or Spanish physician, who, about the middle of the sixteenth century, also described the disease as distinct from morbilli. Epidemics of scarlet fever were first described in this country by Sydenham in 1676, and about the same time in Scotland by Sir Robert Sibbald, physician to the Court, and in the middle of last century by Pothurgill and Hauckm. But, notwithstanding the accurate descriptions of these distinguished observers, scarlet fever and measles continued to be regarded by many physicians as mere varieties of one disease; the former being often styled "morbill convulentes," and the matter was only finally set at rest by Dr. William Withering in his classical essay published in 1779.

Shortly before (1765), the two diseases had been separated by Evans in his Nosology, and he was the first to call measles "rubeola," instead of "morbilis," by which name it had always been known before. This new name, "rubeola," was adopted by Cullen in his Nosology, published four years later (1772).

The disease which I wish at present to bring under your notice was separated from measles and scarlet fever at a still later date. It was first described by German physicians about the middle of the present century, and particularly by Ziegler, Heim, Hildenbrand. The last of these writers called the new disease "rubeola," and retained the name "morbilis" for measles proper; and this nomenclature has been adopted by many subsequent German writers, including Schloënin, whereas English writers, with the exception of Dr. Copland, have followed Cullen's nosology, and called ordinary measles "rubeola." Hence the rubeola of many German writers is not the rubeola of English nosologists, and when the new disease came to be recognised in England it was often designated "German rubeola or measles." There are, however, many other names by which it is known—such as rubeolar, rubeola, rubeolea, morbilis, morbilli scarlatae, coccidemia, rubeola nothis, bastard measles or scarlatina, hybrid measles or scarlatina, &c.

In this country the disease has been well described by Robert Eyre, who observed it epidemic in Leith and its neighbourhood in 1840; and by Dr. G. W. Balfour, who in 1857 had an opportunity of studying another epidemic of it in the vicinity of Edinburgh.

+ Heim in Hof-Gutliey's Journal, 1842.
§ Dr. Fawcett: An Account of the Rötheln of German Authors, with a Few Observations on the Disease as it has been seen in Leith and its neighbourhood. (Edin. Med. and Surg. Journ., Apr. 1844, p. 361.)
The existence of the disease, however, is still far from being generally recognised. With the exception of Copland and Aitchon, few systematic writers in this country even mention it. Copland, in his lectures, nor in the new nomenclature of the Royal College of Physicians. Tanner mentions it, but thinks it unnecessary to describe it; while in Reynolds's System of Medicine it is only referred to in a diagnosis as an independent disease is also doubted by many foreign physicians.

Niemen, in his Text-book of Practical Medicine, speaks of cases of scarlet fever with a rash like measles (rubella scarlatinosa), and of measles with a rash like scarlet fever. But, while there is much uncertainty as to the intergradation of these diseases, it is not correct, however, to say, as Hebra does, that it has often been observed is thought to pass into the other in the same individual; or, more prominent; so that the two diseases are sometimes be- another, or at different periods in the same case, being the lend weight to this view—such as the fact that the disease been called "rubella sine catarrho." scarlet fever; and there are several circumstances which therefore, to speak of rötheln as identical with what has been called "rubella sine catarrho." So that the two diseases are sometimes be- another, or even within the first twenty-four hours. 2. The rash appears first on the breast and arms, but sometimes first on the face, and soon becomes universal. It consists of small, red, flat, little pustules, or spots, which run togethe into irregular patches, with obscure blunt angles, something like those of measles; but, after a time, these patches usually coalesce, and the whole skin becomes uni- formly red, as in scarlet fever. The eruption is copious, in a direct ratio to the severity of the general symptoms. It lasts longer, as a rule, than the rash of either measles or scarlet fever—from four to ten days. Its disappearance is followed by a desquamation of branny scales. 3. With the appearance of the rash the other symptoms are aggravated, and there is a combination of scarlatinous angina and tongue with morbillous catarrh. The throat is always sore, and the tonsils swollen and red; but the latter are rarely ulcerated. The swelling in the throat may be so great as to render breathing difficult, though not absolutely, but not often, the glands in the neck suppurate. The tongue, which at first is white and coated, usually becomes after a few days clean and red, and the papillae may be large and prominent, exactly as in the tongue of scarlet fever. But with all this there is more or less catarrh of the nasal and respiratory passages and coryza, and sometimes there is severe bronchitis, the suffering from which is greatly aggra- vated by the swelling in the throat. It is a mistake, therefore, to speak of rötheln as identical with what has been called "rubella sine catarrho." 4. The disease can propagate itself. Many writers, like Copland, regard rötheln as a hybrid between measles and scarlet fever; and there are several circumstances which lend weight to this view—such as the fact that the disease presents the characters of both measles and scarlet fever combined, those of measles in one case, or of scarlet fever in another, or at different periods in the same case. The following heads :-

**TREATMENT OF DELIRIUM TREMENS.**

You have lately had under your observation in the wards several cases of delirium tremens. I propose to conclude this lecture by bringing them briefly under your notice, more especially in reference to the vexed question of treatment.

**CASE 1.**—W. P., aged thirty-four, in H.M. Civil Service; admitted January 17th. For six years had been very intemperate, and had five previous attacks of delirium tremens, none very severe. Symptoms in this attack of moderate severity; no albumen in urine. Treatment : Bark and mineral acids; and for two nights a draught with fifteen minims of solution of opium; nutritious food, but no stimulants. Discharged well on Feb. 1st.

**CASE 2.**—Erskine W., aged thirty-five, a surgeon; admitted April 4th. Had five previous attacks of delirium tremens; and his mother was insane. He had had a good deal of mental anxiety, had been drinking hard for twelve months, and had been several times on the verge of delirium tremens. Sixteen hours before admission he was seized for the first time with severe epileptic convulsions, foaming at the mouth and biting the tongue &c.; and before being brought to hospital there had been sixteen fits in all. On admission, quite unconscious, but no stertor; occasionally delirious and excited; urine contains one-fifteenth of albumen; area of hepatic dulness contracted; breath offensive. He was freely purged with croton oil and enemata, and took a mixture of bromide of potassium and carbonate of am- monium, with milk and beef-tea, and four ounces of brandy (ordered by one of the resident medical officers). One or two fits occurred after admission, but on April 6th there had been no recurrence of them for thirty-six hours, and he was quite conscious. On the same evening, however, well-marked symptoms of delirium tremens set in. He slept none, and next day was very excited, and had a quick (100) intermitting pulse. Half a draught of hydrom of chloral, in conjunction with a half-cup of brandy, now ordered every four hours, but no result. After the second dose he went to sleep, and awoke after fourteen hours free from all illusions. From that time until his discharge from the hospital on April 16th, he remained free from convulsions and from any symptoms of delirium tremens, and all trace of albumen disappeared from the urine.
Case 3. — Walter W. — aged thirty-nine, a surgeon, admitted April 9th. He had an unmistakable history of phthisis, and in both lungs were extensive signs of tubercular infiltration in an advanced stage; and there was also pronounced oedema of the right upper lobe of the lung. For many years he had been very intemperate, and for six weeks he had been drinking very hard. On admission, he was in a state of delirium tremens; had not slept for several nights; was very excited; threatened to shoot his wife, &c. Urine contained one-third albumen. He was ordered half a drachm of chloral every four hours. After the fourth dose he had a prolonged sleep, on awaking from which the symptoms of delirium tremens had almost disappeared. He was rapidly improving. The urinary symptom, pulmonary mischief, and died on April 12th, at 8.30 p.m. Brandy (six ounces) was allowed on account of the phthisis.

CASE 4. — William S. — aged forty, a butler, admitted April 30th. Been very intemperate for many years, and drinking very hard, mostly gin, for one month. Delirium tremens set in three days before admission. Pulse 108; frequent vomiting; nothing retained on stomach; urine scanty, and contained one-third albumen; liver large and tender; consciousness was rapidly returning, and the patient seemed to act beneficially in moderating active delirium or congested liver. He was ordered half a drachm of chloral every four hours, and sinapisms to epigastrium. No stimulants. After six doses the vomiting had quite ceased, but there had been no sleep. He was now ordered a glass of brandy, and then a full dose of chloral (one drachm every four hours), and sinapisms to epigastrium. No stimulants. After two or three occasions subsequently he had symptoms of congested liver and restless nights, requiring a return to aperients and the drug. When the patient was quite rational, and well, on May 30th, his urine was still free from albumen.

The observation of these cases must have impressed upon your memories the leading symptoms of delirium tremens. It is not my present intention to describe them to you in detail, but I may remind you that they are mainly three—viz., 1. Sleeplessness; 2. Illusions and delusions of a peculiar form; and 3. Tremors of the muscles. Among other less frequent symptoms which you must have noticed are, a quick, soft pulse, without any rise of temperature; white, furred tongue; loss of appetite, and craving for alcoholic stimulants; and injected conjunctivas.

It is to the treatment of delirium tremens that I wish more particularly to call your attention. The objects in treatment are twofold: first and foremost, to procure sleep; and secondly, to induce the patient to substitute solid food for alcoholic stimulants.

I am sincerely agreed that sleep is the great desideratum in delirium tremens; but there is great difference of opinion as to the best way of inducing it. Let us briefly review the remedial measures which are most relied on.

(a) Alcohol.—It has been contended that delirium tremens is almost invariably the result of abstaining from stimulants by a person who has been previously intemperate, and that the best way of inducing sleep is to administer brandy and other alcoholic stimulants in frequently repeated doses. According to my experience this doctrine is founded on error, and the practice is most pernicious. You will have no difficulty in finding that the patient had not slept, accurately the commencement of the symptoms, and this I believe to be the rule. Give alcohol, and you only add fuel to the fire, and keep up congestion of the stomach, liver, and kidneys.

Medical men, in my opinion, interfere with a patient by quenching alcohol in the treatment of delirium tremens. I have long been in the practice of giving none, except in cases where there has been evidence of fatty heart, or an intermitting pulse, or there has been some coughing. When this is the case, as in case 3, the patient has no doubt often experiences considerable distress, but I have never seen any bad consequence from suddenly cutting off the supply of alcohol in which he has been indulging before the attack. This result of my former experience has been borne out by the cases which have been before your observation.

(b) Food. — In all cases it is well that the patient should have as much nutritious food as he can digest. Some authorities contend that all that is necessary to induce sleep is to give strong beef-tea and other nutriment of a like nature. This, and abstaining from stimulants, will no doubt often produce sufficient effects in mild cases of delirium tremens; but if the cough and expectoration are very great, it will follow this in severe casesis quite opposed to my experience, while in not a few bad cases there is congestion of the stomach and liver, and food of all kinds is rejected. It is necessary, therefore, to be provided with other means for inducing sleep.

(c) Opium and its preparations were for a long time the drugs chiefly relied on for inducing sleep in delirium tremens. Of late years they have fallen into discredit, and are rarely used. The authority on which many of the errors of opinion on this subject are based, has been to the practice of giving opiate in a way calculated to ensure its action. This is erroneous; for in many cases opium fails entirely in inducing sleep, or may aggravate the symptoms, or even cause convulsions and coma. The question at once arises: Is there no explanation of this difference?—is it impossible to say when opium is likely to succeed or not?—or must we, from being uncertain of the result, adjure the use of opium altogether? My opinion is that the action of opium in cases of delirium tremens is lost in the general state of the kidneys, as indicated by the characters of the urine. Whenever the urine contains albumen as the result of recent congestion or old disease of the kidneys, opium is absolutely useless. From fifty to ninety-six per cent of opium in the urine is a safe test. Accordingly, it is a good rule never to give opium until an opportunity has been offered to test the urine. But when the urine has been ascertained to be free from albumen, opium may be given without fear, and usually with the best results. When the opiate is retained, and the urine free of albumen, the commencement with a full dose, and give a smaller dose every three hours afterwards until sleep ensues. When the skin is dry, or the patient much excited, the opium may be advanced by drops, to induce a tranquil state of mind and discharges them, in the manner recommended by the late Dr. Graves.

(d) Digitalis is another remedy of undoubted power in the treatment of delirium tremens. It is particularly indicated in cases where the urine is scanty or contains albumen, or where the patient is very excited. I have known it to act most beneficially in cases where opium had failed. Its good effect is not attributable to the alcohol of the tincture, for the large doses recommended by the late Mr. Jones, of Jersey, are quite unnecessary. It appears to act mainly in virtue of its sedative, and yet tonic, influence over the organs of circulation; while the large flow of urine following its use makes it probable that it assists in the removal of deleterious matters from the blood, and thereby discharges them, in the manner recommended by the late Dr. Graves.

(e) Bromide of potassium has been strongly recommended for delirium tremens; but in severe cases I have not found it of much service in inducing sleep. Although it has seemed to act beneficially in moderate degrees or mental excitement.

(f) Hydrate of chloral. Delirium tremens is one of the many maladies in which this now drug has been used with advantage. It is a remedy for inducing sleep which is particularly applicable in those cases where opium is contraindicated. It does not, like opium, interfere with elimination by the kidneys; and indeed there are grounds for believing that the existing impurities of the blood favour the action of the chloral by assisting in the liberation of chloroform. One caution is necessary with regard to it; that is, not to commence with a large dose, but to commence with a full dose, and give a smaller dose every three hours afterwards until sleep ensues. When the skin is dry, or the patient much excited, the opium may be advanced by drops, to induce a tranquil state of mind and discharges them, in the manner recommended by the late Dr. Graves.
bismuth, &c.; and when the stomach is in a quiet state, the appetite may be stimulated by the mineral acids, quinine, and other bitter tonics. In private practice, where it is sometimes impossible to cut off stimulants to the desired extent, it is a good rule to insist that they shall never be taken unless with solid food.

ON RUPTURE OF THE EXTENSOR TENDON OF THE KNEE.

BY GEORGE BUCHANAN, A.M., M.D., SURGEON AND LECTURER ON CLINICAL SURGERY, GLASGOW ROYAL INFIRMARY; PROFESSOR OF MEDICINE AT ANDERSON'S UNIVERSITY, Etc.

Rupture of the tendon of the quadriceps extensor cruris is an accident of sufficient rarity to give an interest to the following record of three cases which have occurred in my practice within the last twelve months. In two of the cases the tendons of both legs were ruptured simultaneously, in the third only one gave way.

Case 1.—On February 24th I was requested to visit Mr. W., by Dr. Steven, who gave the following account of his accident:

"Mr. W., age over sixty, height above 6 ft., and stout I think, was seen by Dr. Buchanan in the evening. Stumbled, through not observing the last step, at a door in town. Somewhat in the air, he was jumping, sprained both knees, so that ever since, after sitting on a low seat, he has suffered a pain, and has often, among his friends, referred to the discomfort and the cause of it. Dating from the same time he has often appeared 'shaky' about the knees. On the 24th he thinks he fell in such a position as to fold his knees below him. The less complete rupture of the ligament of the left makes it probable that his weight was less thrown upon it at the moment of falling. He could not rise, or in any degree, with his legs, assist the friends who were with him to place him in a cab."

Immediately on reaching home he sent for me, and at 2.30 A.M. I saw him in bed on his back, with both legs extended, and without power to change their position. The tendons of the quadriceps presented the appearance of a pair of crutches, this became less and less. Since May 24th he has come into town daily in a carriage, and also has spent a good deal of time in his garden; still, however, for some time past he has given up the crutches, and carries two stout walking sticks, though he does not always use them.

Case 2.—Joseph C., aged thirty-nine, was admitted to ward 17 of the Glasgow Royal Infirmary on the 12th of May, 1870. Patient says that on the 3rd of January last, while walking at a medium pace, he felt a giving way of something at both knees with a snap, then fell down, and was unable to walk. He was in perfect health at the time, and says he did not trip against anything, nor yet walk with any amount of vigour. He never had rheumatic fever, and is never troubled with anything like rheumatic pains. On examination of the knees, there is found above each patella a gap in the extensor tendons, about an inch and a quarter broad, more appreciable towards its centre, and not quite so marked at each side—alas if the centre of the tendon had been most ruptured. He can walk pretty well now, and can bend his knee slightly with ease.

June 10th.—Since last note patient has been lying on his back with his legs bandaged and elevated, and with a figure-of-8 bandage round the knee, so as to approximate the two ruptured ends of the tendon; and under this treatment the gap has got decidedly less, but still there is a vacuum of about half an inch between the two ruptured ends of the tendon.

33rd.—Patient was to-day dismissed, with the injunction that he is to keep the bandage round the knee, and, in walking, to bend the knee as little as possible, and to walk with his legs perfectly straight.

Case 3.—This case occurred in the practice of Drs. Campbell and Kirkwood, of Large, with whom I saw the patient on Sept. 17th. Mr. B., aged eighty-four, a tall, healthy old gentleman, who had never been the subject of rheumatic tendency to retract the, Mr. B. on the 15th, ascending a step, he felt a weakness in his left leg, and fell forward on his knee. He was unable to rise, and, on being lifted, felt an inability to move the injured knee. When Drs. Campbell and Kirkwood saw him they at once recognised a gap above the knee, indicative of rupture of the tendon above the patella. When I saw him, two days afterwards, the gap was about half an inch wide, the edges being quite sharp, as if cut with a knife. As there was much rigidity of the patellar ligament, he was simply enjoined to lie as quiet as he could, a bandage being applied for a few days to control muscular action, but to be discontinued as soon as the limb became accustomed to the straight position in bed.

Glasgow, Sept. 22nd, 1870.

ON THE PROPAGATION OF SCARLET FEVER.

BY OSWALD HOMEL BELL, M.D., PROFESSOR OF MEDICINE, UNIVERSITY OF ST. ANDREWS.

On the 9th of May, 1859, a young female, in the servants' department of an educational institution in connexion with the University of St. Andrews, complained of slight sore-throat, and exhibited a faint eruption on the throat and wrists, unaaccompanied by fever, for which, under the fear that it might be scarlet fever, she was at once sent from the Hall, and isolated in a distant part of the town, where no children were. Desquamation of cuticle followed in due course. The case was one of scarlet fever.

On May 14th one of the students in the Hall was seized with smart ulcerated sore-throat, high fever, and marked prostration. He had neither rash nor desquamation. When a child he had had scarlet fever.

On May 15th, a second female in the servants' department was laid down with a smart attack of scarlet fever. She was at once removed, along with her bedding and clothing, to a house in the country, and the room she had been in was subjected at once to thorough fumigation with burning sulphur, &c., and all communication with the rest of the house was cut off. Carbolic acid and sulphur fumigation were freely used, and the windows and doors were kept constantly open. Dr.