Transactions of Societies

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Edinburgh Medico-Chirurgical Society.

A meeting was held on 15th January 1913, Mr. J. M. Cotterill, President, in the chair.

Drs. Charles McNeil and J. P. McGowan communicated a paper on "Endemic Febrile Illness, with Rapidly Fatal Cases, in a Boys' Industrial School near Edinburgh," which appears on p. 201.

In the discussion which followed Dr. J. L. Green said he had seen and treated several of the cases at the institution referred to in the paper. The illness was a remarkable one. The most healthy boys seemed to be the ones most commonly affected. The temperature was an almost certain guide to the prognosis. Whenever it exceeded 102° F. the case proved fatal. The disease was not only deadly to its victims, but was most terrifying to the other boys.

Dr. R. J. Johnstone said that he was a manager of the school. Everything in the way of ventilation, food, and clothing had been looked into. At one time all the boys had been camped out in tents. The epidemic had been arrested for five and a half months, and then one case had occurred.

Mr. Wade said he had seen some of the cases which were undoubtedly pneumococcal septicemia. He thought that a factor in the etiology was the change in the environment of the boys when they were transferred from a life of a primitive kind to one involving work and discipline.

Professor Littlejohn said it could not be supposed that lymphatism was the cause of death in these cases, but that condition made a fatal result more likely to occur. He held that in infancy status lymphaticus might actually produce death. The thymus pressed on important organs and might cause cyanosis. He had seen a case post-mortem in which the thymus completely obscured the heart. The robustness of cases of status lymphaticus was more apparent than real.

Dr. Sheman said that he and other members of the pathological staff at the Royal Infirmary had made post-mortem examinations on several of these cases. In some of them pneumococci were found, and this was the only cause of death which could be assigned, although the explanation was not altogether satisfactory. Negative results were obtained in at least two cases favourably placed for procuring cultures of the pneumococcus. In several cases no enlarged thymus or hypertrophied lymphatic tissue had been noted, and this was an additional and valuable contribution of the authors to the possible pathology of these cases. The pneumonia present in several cases did not seem sufficient to cause death, and he would prefer to call the cases pneumococcal poisoning. Many difficulties arose in connection with status lymphaticus. Why was this school specially affected? Cases of death occurring after injection of diphtheria antitoxin had been attributed to lymphatism, but that raised the question of anaphylaxis. He asked if cyanosis were a sign of lymphatism.

Dr. Goodall said he had had a most alarming experience which he thought answered Dr. Sheman's question. He had on one occasion been amusing a child of four in a hospital ward. The game became rather noisy, and he had laid the child on his back in his cot and drawn the coverlet over his face and walked off. As the child did not respond with the volley of impudence
he expected he turned and found the child had not moved. On withdrawing the sheet the boy was seen to be cyanosed and not breathing. Fortunately he had almost immediately given a gasp and normal breathing returned. This was a lesson not to take any liberties with children who might be suspected to be subjects of lymphatism. He was rather surprised to hear that children suffering from this condition looked robust. In cases in which he had suspected the condition the child always presented an appearance which might be described as "pasty." He had been asked to examine a few such children before proposed operation, generally for tonsils and adenoids. There was slight anaemia, leucopenia with high lymphocyte percentage, and he advised that such cases should be left alone. There were, of course, very many cases of enlarged tonsils and adenoids without lymphatism. He was inclined to think that all the symptoms described by the authors of the paper might be attributed to pneumococcal septicemia. The existence of the lymphoid changes in cases of fulminating scarlet fever and diphtheria seemed to vitiate the authors' argument and might simply be a response to toxæmia at an age when lymphatic hyperplasia was common and easily induced.

Mr. John Fraser read a paper on "Bone Tuberculosis," which appeared in the Journal (1912, vol. ii. p. 436).

Mr. Stiles said that the paper confirmed his opinion that the pathology of bone tuberculosis depended on the distribution of the bacillus. Mr. Fraser had found it easy to infect joints experimentally and difficult to infect bone. In children, however, bone was easily infected. The reason was that they were suffering from toxæmia from another tuberculous focus—usually in glands of the neck, thorax, or abdomen. This toxæmia set up an endarteritis, and the resistance of the marrow was impaired and tubercle of bone followed. Tubercle very rarely began in the epiphysis, and when it occurred there it was secondary to a joint lesion, either through necrosed cartilage or from the synovial membrane. Tubercle of the diaphysis was often primary, and the disease might pass to the joint or might be secondary, the joint lesion reaching the diaphysis through the synovial membrane if the epiphysis were short. There were primary lesions which began in the epiphyses without joint lesion. It was important to treat these before the joint became affected. If the X-rays showed a circumscribed lesion, conservative treatment might be employed; if a diffuse lesion, it should be cut down upon. The great importance of Fraser's work was that it established the fact of the frequency of bone and joint tuberculosis of bovine origin. These were cases of milk infection, and by his declaration that the human subject was not liable to bovine tuberculosis, the discoverer of the tubercule bacillus had done more than anyone else to spread tuberculosis.

A meeting was held on 5th February, Mr. J. M. Cotterill, President, in the chair.

Dr. Edwin Bramwell showed a woman suffering from symmetrical paralysis and wasting of the intrinsic muscles of the hands. She was 33 years of age, and had probably suffered from congenital syphilis. The condition of the hands had first been noticed at the age of 1 year. Sensation was unimpaired. There was a strong probability that the case was one of congenital absence of the muscles.

Dr. Archibald M'Kendrick read a paper on "The Position of the Radiographer in Relation to the Physician and Surgeon." He referred to the status of the radio-
The President remarked that the question was difficult, and thought that the profession was not yet in a position to deal with it. The problem would probably answer itself in time. Mr. Wallace asked what good the photograph was to the man who had not seen the patient. It was of great value to the surgeon in charge of the patient. Some of the very best plates were taken by men who had no medical training, and he did not care who had taken the photograph as long as it was a good one. Dr. Chalmers Watson said that the main consideration was a good photograph. Mr. Struthers said that some radiographers professed very wide powers of diagnosis, but after all they only saw one aspect of a case, and they could hardly be experts in the various branches in which they were called upon to assist.

Mr. John Fraser gave a lantern demonstration on *Joint Tuberculosis*. He referred to the conclusion reached in his previous communication (*Edinburgh Medical Journal*, 1912, vol. ii. p. 436), that bone and joint tuberculosis was a blood infection commonly of the bovine type. He referred to the anatomical arrangement of joints, and showed the position of the circus vasculosus and the metaphysseal vessels and their influence in determining the starting-point of the lesions. The pathological changes in the synovial membrane was in the first place a thickening of the endothelial lining and a deposit of fibrin. Further developments might be in four directions—(1) Tubercles scattered all over the membrane. In this type caseation occurred early. (2) Multiple but localised tubercles surrounded by fibrous tissue. (3) Tubercles associated with active growth of granulation tissue. (4) The whole synovial membrane becomes converted into fibrous tissue. There was always endarteritis. The lesion affecting the cartilage might be perichondral or subchondral. In the former the cells became myxomatous, and the matrix became fibrous. The cartilage then tended to be rubbed off. In the subchondral cases the disease penetrated between the articular cartilage and the bone, and the cartilage might be thrown off in flakes or lifted off like a cap. In bone the marrow became fibrous and the bone became rarefied.

The treatment of early bone tuberculosis was essentially conservative. A light splint that could be moulded to fit the joint and was easily removable for purposes of massage was the best. He had found celluloid splints very useful. A cheap substitute could be made by a mixture of gum, gelatine, and potassium bichromate. He had found benefit follow the use of an autogenous vaccine. A piece of fresh tuberculous tissue was ground up with sand, the emulsion of bacilli was standardised, and its value seemed to lie in the fact that it contained in addition to the toxins the principle which determined the curative overgrowth of fibrous tissue.

Professor Caird said that the paper was enlightening and helpful. The author had done much to disentangle the different pathological processes. He had been specially struck by the explanation of the incidence of the disease by the position of the vascular zone and by the resemblance of the changes in the vessels to those seen in syphilis.
Mr. Stiles said he had been engaged for twelve years in the treatment of tuberculous bones and joints. The question was a very wide one—not a mere question for the specialist or orthopedist. Mr. Fraser had spoken of the early and chronic cases. In Scotland there were only three institutions where such cases in children could be treated. They tended to be elbowed out of the large hospitals by abdominal and other cases. In advanced cases such as they saw in Scotland he had been accused of doing radical operations when conservative measures might succeed. But in cases, say, where the head of the femur had been destroyed, where there might be an abscess in the thigh or in the pelvis, it was of no use to keep on waiting in hospital, nor was it any use to send such cases home. Mere opening abscesses and scraping did more harm than good. A thorough attempt to remove all the diseased tissue should be made. It was extraordinary how such cases improved after operation. They were freed from a chronic toxaemia. He did not mind how advanced the tuberculous process might be if there were no mixed infection. The result depended on the extent of the disease and the extent of operation, but to a greater extent on the after-treatment. In this respect they were under a great disadvantage. Patients had to be sent away from hospital, and often from any near skilled advice. The best plan under the circumstances was to put up the joint in a plaster of Paris splint. What was wanted was a country open-air hospital for these cases. If a fair proportion of the money that had been spent on sanatoria had been directed towards the eradication of bovine tuberculosis the disease would have been now much less. Bovine tuberculosis was eradicable.

Dr. James Miller said that the large proportion of bovine tuberculosis was not the experience of other places, but it was certainly commonest in Edinburgh. Obliterative endarteritis was not peculiar to bone tuberculosis. It occurred in the lung, and had the effect of diminishing the tendency to hemorrhage. He had seen endarteritis in the neighbourhood of the affected part, away from the actual lesion.

Mr. Dowden said that he was convinced of the bovine origin of tubercle in children, but it was rather remarkable that bone tuberculosis was common in China and Labrador although milk was not drunk. Gland tubercle was, however, rare. He remarked upon a very virulent type of tubercle which was seen in old persons. There was now a great diminution in the number of cases operated upon for excision of tuberculous joints. This was probably due to the greater tendency to conservative treatment.

Dr. McKendrick said that in X-ray photographs one frequently saw an excess of bone at the point of entry of the nutrient artery. The same sort of change was seen in rheumatoid arthritis. He was indebted to Mr. Fraser for pointing out these changes which blurred the outlines of the bones. He had often had photographs sent back because the outlines were not well shown, and it was clear that this was not the fault of the picture but of the bone.

Dr. Chalmers Watson was interested in the resemblance between tuberculosis of joints and rheumatoid arthritis. He had long held that in the latter condition there was a vascular affection due to toxaemia.

Dr. Cowan Guthrie referred to the importance of environment in the incidence of tuberculosis.

The President remarked on the difficulty of carrying out proper treatment of bone and joint tubercle in general hospitals. Cases were turned away by the dozen, and other cases admitted had to be turned out in three or four
weeks to return to conditions which did not favour recovery. There was urgent need of country homes for surgical tuberculosis where the patients could have medical supervision as well as fresh air and good food.

**Forfarshire Medical Association.**

A meeting of this Association was held in the Conjoint School of Medicine, Dundee, on 13th February, Dr. R. C. Buist in the chair.

Dr. Foggie showed (1) a case of favus, untreated and of two years' duration, in a child of 4, and (2) a case of molluscum contagiosum in a boy of 14 years.

Professor Kynoch demonstrated the following specimens:—(1) A pregnant uterus at full time with concealed accidental haemorrhage. On admission to hospital the patient, aet. 43, and 11-para, was pulseless, and died while hurried preparations were being made for Caesarean section. (2) A thin-walled ovarian cyst. Seven years previously a right ovarian tumour had been removed by Professor Kynoch. During the interval between operations menstruation had been regular and slightly excessive. The left ovary was now completely cystic and no Graafian follicles were demonstrable macroscopically. (3) Fibroma of ovary undergoing calcification. This was coincident with malignant disease of the omentum, the latter being the cause of the pain which the patient suffered.

Mr. Price showed a specimen of sarcoma of the liver from an infant of seven months. About five weeks before death there was noted some distension of the abdomen, and three weeks later the abdominal parietes were seen to be exceedingly thin, while there was dulness, more marked in the right side than in the left, in the upper half of the abdomen. The lower margin of the liver could not be felt. There was ascites. Exploratory celiotomy was performed, and a large liver with smooth surface was noted. Pathological report was small round-celled sarcoma of liver, with numerous hemorrhages and almost complete replacement of liver tissue. Mr. Price read a paper entitled "Notes on Some Cases of Facial Neuralgia Treated by Injections of Alcohol." The cases numbered six. The technique recommended was the "hitting" of the second and third divisions and the supra-orbital branch of the first with the point of the hypodermic needle and the injection into the surrounding tissue of $1\frac{1}{2}$ to 2 c.c. of 80 per cent. alcohol. The patient's sensation of pain indicated when the nerve was touched, and each division or branch was "hit" as it made exit through its foramen. Of the six cases five were successful, the first alone being a failure, and in this the absence of anaesthesia probably indicated the missing of the nerve. The patient refused to have a repetition. In one case a second injection was required, but the others reported themselves as free from pain. Mr. Price preferred to employ this method rather than resort to operations on the Gasserian ganglion. If injections failed, then an operation on the ganglion might be justifiable.

Dr. Foggie read "Notes on Two Cases of Acquired Dextrocardia." The first was a girl of 17 who had had bronchitis from the age of 5. The heart extended to the right nipple line. An X-ray photograph was shown. The second was that of a man of 26, with consolidation of the right lung and extensive suppuration. Pneumothorax was present at a later stage. There was transposed precordia on the right side.

Mr. Don described a case of acute pancreatitis, at present undergoing treatment. She was admitted to hospital with the diagnosis of appendicitis. The
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previous day she had taken ill and had very severe pain all over the abdomen. There had been similar attacks during the previous seven months, and the complaint was of pain a little above the umbilicus, then throughout the abdomen and up to the shoulders. There was no jaundice, but the stools were sometimes clay-coloured. At the operation the appendix was found to be normal. About a pint of brownish-green fluid escaped from the subhepatic omentum. Plaques of fat necrosis were discovered in the omentum. A fistula passed into the pancreas. Duodenum was normal. Gall-bladder contained a few calculi. Mr. Don regarded the case as one of inflammation of the pancreas with rupture of the duct.

Dr. Pirie showed a series of radiograms from a case of resection of bone, in which the regeneration of bone was to be seen. Sir William MacEwen's views as to new formation of bone were referred to. Mr. Price added a few observations on the case which had been under his care.

RECENT ADVANCES IN MEDICAL SCIENCE.

MEDICINE.

UNDER THE CHARGE OF

W. T. RITCHIE, M.D., EDWIN MATTHEW, M.D., AND
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Bilharzial Disease.

The lesions of bilharzial disease (Glasg. Med. Journ., January 1913) are described by Professor Ferguson of Cairo, and as the result of extensive observation and experiment several interesting new points are brought out. The disease has been indigenous in the Nile valley from the very earliest times, and from Egypt has probably been carried by infected persons to other parts of the world where it has appeared in more recent years. By a method of digesting pieces of tissue from the bladder, bowel, etc., in 3 per cent. caustic potash solution at 60° to 80° C. and examining the sediment under the microscope the writer found the disease present in 61 per cent. of all males brought to post-mortem examination in Cairo. Further, the ova can be demonstrated in many parts of the body where their presence has not hitherto been suspected, viz., the ovary, lungs, brain, and spinal cord. When ova are set free in the urine or faeces the resulting miracidium dies quickly unless it can escape into fresh water. Even in ponds and pools the miracidia live only for thirty-six hours, so that a volume of water becomes again harmless within forty hours of infection. Infection probably takes place through the nasal and perhaps through the genital mucosa. With regard to the position of the spine on the ova both lateral and terminal spines may be found in the bladder and rectum and even upon ova in the oviduct of one worm, so that this character of the ovum depends neither on its species nor on the organ affected.