CLINICAL MEETING.*

MR J. W. STRUTHERS in the Chair.

EXHIBITION OF PATIENTS.

Dr Fergus Hewat showed (1) a patient, aged 57, after pylorectomy for **adeno-carcinoma of the stomach** operation in Chalmers Hospital.

Indefinite gastric symptoms began two years ago, and later loss of weight was noted. Fractional test meal showed absence of free hydrochloric acid and the presence of lactic acid throughout. Some degree of pyloric obstruction was also noted by X-ray and by the giving of charcoal powder the night before the test meal was carried out. Mr Mercer operated a year ago and found a small early adeno-carcinoma about two inches from the pylorus without glandular involvement. Pylorectomy and posterior gastro-enterostomy were performed. Before the patient left hospital another fractional test meal was carried out and free hydrochloric acid was present. The patient has been free from gastric symptoms since the operation. The case illustrates the value of a fractional test meal in that the absence of free hydrochloric acid with the presence of lactic acid may be present in an early case of carcinoma of the stomach. Mr Mercer kindly allowed the specimen to be demonstrated.

(2) A female patient, aged 19, after operation for **duodenal ulcer** causing pyloric stenosis.

Gastric symptoms began three years ago. Rather more than a year ago she received medical treatment along the usual alkaline lines now so much in vogue. She left hospital much relieved and free from gastric symptoms. She was admitted to Chalmers Hospital with a recurrence of her gastric symptoms, sharp pain after food, vomiting, flatulence, and loss of weight. She was again given the routine alkaline treatment with complete failure to relieve her symptoms. A fractional test meal showed retention and a high gastric acidity. Mr Mercer operated on 26th January 1928, and found a duodenal "kissing" ulcer. Gastero-enterostomy was performed. She has been free of gastric symptoms since then, and has put on nearly two stones in weight. This case illustrates the failure of routine medical treatment in such a case, and that duodenal ulcer of a crippling type may occur in a young girl.

Mr J. J. M. Shaw showed three cases of **malignant ulcer of the nose** with varying degrees of destruction.

* 16th May 1928.

The *first* case showed the unoperated condition in which the gap to be filled, after the removal of a lupus carcinoma, was demonstrated, and the methods of obtaining lining flaps from the surrounding skin, and of a covering flap from the forehead, were described.

The *second* case showed the intermediate stage of repair in which the gap due to an old epithelioma of the nose, removed in Glasgow nine years ago, had been covered in firstly by a lining flap with skin towards the nasal cavity, upon which was superimposed a forehead pedicle flap.

The *third* case showed the final result of a fully operated case, in which the defect was due to a large rodent ulcer. In this case the unwanted portion of the pedicle had been returned to the forehead, and a free graft applied to the deficiency on the forehead corresponding to the portion of skin which had been supplied to the nose.

The points of importance which the cases demonstrated are (1) the need for certainty that the growth had been completely extirpated before plastic repair should be commenced; (2) the necessity for the provision of a skin or mucous membrane lining to replace the lost mucous membrane of the side of the nose, in addition to the provision of superficial skin covering; (3) the conservation of the nostril as a proper functional airway, in order that the plastic result might be rendered permanent.

Mr Quarry Wood showed (1) a case of **diverticulosis of the pelvic colon** complicated by perforation. The patient came in as a surgical emergency at the beginning of February, and the history was that two days before admission he had a transient attack of abdominal pain which only lasted about ten minutes and to which he did not pay much attention. The following day he was quite well. On the day of admission pain started about six in the morning and continued all day. He came to us in the evening, and on examination he showed evidence of peritonitis in the lower abdomen. The abdominal wall was tender, and the tenderness was most marked in the right rectus about halfway between the umbilicus and the pubes. A tentative diagnosis of acute appendicitis was made. On opening the abdomen in the right iliac region we found a collection of sero-purulent fluid, but the appendix itself was healthy. On examining the pelvis we found the pelvic colon adherent to the pelvic floor, and on separation of this portion of bowel, the condition became evident. The question of treatment was of interest. The choice lay between attempting to close the perforation and returning the bowel to the abdomen, and resection of the affected part of the colon. The former procedure exposed the patient to the risk of leakage and of further trouble later. It was, therefore, decided to resect. An immediate anastomosis being out of the question, the pelvic colon was brought out through a small mid-line incision and

clamped above and below the affected segment. The pelvis was drained through the iliac incision, the wounds closed, and the bowel divided as the last step in the operation. At a later date the enterotome was applied to the spur between the two ends of the intestine and the fæcal fistula closed.

The specimen illustrated the common site of the diverticula, the different stages in their formation, and one of the complications to which they are liable. Most of the diverticula were simple rounded bulgings on the intestinal wall; others were flask-shaped with long narrow necks, and some of these contained concretions. The presence of concretions encouraged bacterial proliferation and complications such as acute or chronic diverticulitis or perforation.

A barium enema, administered after closure of the fæcal fistula, showed that the barium flowed freely past the site of the anastomosis and that no other diverticula were evident.

(2) A case of **carcinoma of the rectum.** This patient had suffered for a period of nine months from bleeding from the rectum and tenesmus, and on examination per rectum the diagnosis was easily made—a neoplasm was felt a short distance above the anal orifice. The interest of this case lies in the specimen. A colostomy had been performed about the beginning of February. The neoplasm was discovered then to be freely mobile and suitable for radical operation. This was carried out a fortnight later. The perineal wound is now nearly healed and he is quite fit. Ernest Miles has pointed out that carcinoma of the rectum may be subdivided into three types—papillary, adenoid, and colloid.

The colloid type is merely a degenerative form of one of the other two varieties and is of no special interest.

The adenoid variety develops as a flattened growth in the wall of the bowel. At an early stage it invades the muscular coat and very soon afterwards the lymph glands are infected. It is a highly malignant type.

In the papillary form, most of the energy seems to be expended in surface proliferation. The tumour grows towards the lumen of the bowel, and in a short time tends to block the lumen and produce obstruction. Invasion of the muscular coat is late, and the glands in many cases escape infection until a very late period.

The specimen in this case was an example of the papillary type of tumour. Large sections were shown and also a chart illustrating the distribution of the lymph glands. The primary lymph glands of the rectum lie between the muscular coat and the fascia propria and are removed with the rectum at operation. In this case some twenty lymph glands were examined microscopically and all were found to be free from infection.

Clinical Meeting

Dr John D. Comrie showed—(1) a case of **ulcerative endocarditis**, with repeated embolism and blood culture of streptococcus viridans; six months' duration; treated successively by injections of salicylate of soda, septicæmine, and vaccines without benefit; greatly improved after injections of karsulphan with diathermy through chest.

(2) A case of **acute toxic nephritis** following pneumonia and pleurisy.

Professor Wilkie showed three cases following **splenectomy**. He said about a year ago we had a discussion in this Society on the place of surgery in the treatment of disease associated with enlargement of the spleen, and I thought it might be of interest to show the results of three cases illustrating the three diseases which were then brought up as examples of successful surgical treatment.

The first case is that of a girl who was suffering from **chronic purpura**. She is aged 14. It was noticed when she was a child that when she had any slight injury she bled freely. She had a tooth pulled on one occasion, and on another occasion had an abscess opened at the Sick Children's Hospital when she was 7 years old—she bled so much on this occasion that a blood transfusion was necessary. There was often bleeding spontaneously from the nose and gums, and she frequently had crops of hæmorrhagic spots over the body, but it was not until the age of 14, when menstruation started, that the hæmorrhage became at all alarming. At the first onset of menstruation the bleeding continued for a fortnight and the patient was brought up to the Infirmary. Dr Haultain had to plug the uterine cavity in order to stop the hæmorrhage, and thereafter the question of surgical treatment was considered, as she exhibited the typical signs of chronic purpura. Her bleeding time was fourteen minutes. Coagulation time was normal. The fragility of the red cells was normal, but on applying a Bier's bandage round the upper arm, the whole arm below became dark in colour from innumerable small hæmorrhagic spots. It was decided that in this case splenectomy should be carried out, as she had a very small number of platelets—only 18,000 instead of 200,000—and as the platelets are largely destroyed in the cells of the reticulo-endothelial system it was thought that removal of the spleen might save the platelets and so reduce the bleeding time. On the 20th of February the spleen was removed. The spleen was of no great size—about one and a half times the size of a normal spleen for a child of her age.

The interest of her case is that prior to operation her bleeding time was fourteen minutes and her platelets were 18,000. Following on operation the bleeding time has fallen and has remained down, and the platelet count has gone up and has remained up. After operation we again tried the Bier's bandage and this time we could

not produce hæmorrhagic spots on the arm. She has had no further bleeding. She had a period since then, which lasted two days and was in no way abnormal.

Here I think removal of the spleen was clearly successful in curing the condition of chronic purpura.

(2) The next case is one of a patient who suffered from **hæmolytic** or **acholuric jaundice.** She had been slightly jaundiced as long as she could remember—from childhood. She had, however, had tolerably good health, until about a year before operation. Then she began to feel weak, she became anæmic, she had periods in which the jaundice became very pronounced, and she was unfit for her household work. She was admitted to a gynæcological ward, with a minor gynæcological complaint, and it was then that the condition was recognised as hæmolytic jaundice. She was transferred to a medical ward and then to the surgical side. When she came in she had a curious dark jaundice—not intensely jaundiced, but a curious earthy appearance as well as yellow, with a rather cyanotic tint of the cheeks. The spleen was very considerably enlarged and extended down to the umbilicus. A characteristic feature in this condition is fragility of the red cells, but in her case that was not particularly noticeable. The red cells were hæmolysed in 0.6 per cent. saline. The blood count showed a slight secondary anæmia. The coagulation time was one minute forty-five seconds. The bleeding time was two and a half minutes. It is thought that in this disease the fragile red cells are destroyed in the spleen, and the excess of blood pigment carried to the liver is not dealt with normally but some is retained in the system, which causes the jaundice, and therefore it is thought that removal of the spleen may allow the red cells to mature and not be broken down, and may thus relieve the jaundice. On the 19th of March, therefore, this patient was subjected to splenectomy. The spleen in this case was of considerable size. It showed no special features microscopically. The patient stood the operation very well, and the noticeable thing in her case was that within ten days, although the jaundice had not entirely disappeared, there was a very noticeable difference in the patient's colour, and now her complexion is fairly clear, considering that she was jaundiced for twenty years before. She looks now in very good health and I consider she has benefited greatly by the operation.

The last case is an example of the other disease where splenectomy is of real value—that is **splenic anæmia.** The patient is a young fellow, aged 20. He was quite well until one and a half years before operation. He then became pale and breathless on exertion, and noticed he was passing tarry stools. He was admitted to Ward 32 and improved very much whilst in the ward. He had not worked

since his illness started, but he felt tolerably well until six months ago, when he began to be breathless and again noticed he was passing black stools. A month later he vomited dark red blood. He was admitted to a medical ward in an extremely weak condition. He improved steadily, and when he came over for operation he was in tolerably good condition, having no discomfort in the abdomen, no evidence of ulcer of the stomach or duodenum. He had a large spleen and the blood changes which are compatible with splenic anæmia, and a diagnosis of this condition was made and operation recommended. Operation was carried out at the beginning of March, and a spleen weighing 1 lb. 9¼ oz. was removed. This case was operated on at a reasonably early stage, when no cirrhosis of the liver was present, and we hope there will be a permanent cure.

Professor W. T. Ritchie showed a case of **toxic adenoma of the thyroid** in a woman aged 51. In 1923 she began to lose weight and to complain of palpitation and fluttering of the heart. Early in 1925 she became breathless on exertion and the thyroid became enlarged; in September she was dropsical, the ventricular rate was high, and the auricles were in fibrillation. Under the influence of rest in bed and digitalis the ventricular rate fell to a normal level and the dropsy disappeared; thereafter the normal cardiac rhythm was restored by 2.2 g. of quinidine sulphate. When discharged in October 1925 she was in good health, though the thyroid swelling persisted.

In January 1928 the auricular fibrillation and dropsy recurred. After she had again been successfully digitalised, an attempt was made to restore the normal rhythm of the heart by the administration of plasmochin compound; after 52 tablets, representing 0.26 g. of quinoline and 3.25 g. of quinine sulphate had failed, quinidine sulphate was again successful. Three weeks later Professor Wilkie performed a thyroidectomy and now, one month later, the patient, though still thin, is otherwise in good health.

Mr Pirie Watson showed (1) a case of **Chopart's mid-tarsal amputation** of the right foot for crushed and lacerated toes, with appliance fitted to fill forepart of boot.

(2) A case of **knock-knee** and **bow-knee** after several osteotomies.

Mr J. M. Graham showed (1) a case of **bilateral subclavian and axillary aneurysm** associated with cervical ribs. First portion of left subclavian artery ligated for aneurysm mainly involving third portion of subclavian artery on 20/9/24. Aneurysm now present on right side involving mainly the axillary artery.

(2) A case of **Mickulicz' disease**.

Mr Walter Mercer showed (1) a case after operation for **gangrene of lower part of small intestine.** G. S., aged 27. This patient

had previously enjoyed good health until one day in the beginning of February last he was seized with a dull pain in his right iliac fossa. He works in a law office and he tells me he has frequently heavy weights to lift, and it was while lifting one of these that he felt his pain coming on. The pain increased in severity and later in the forenoon he was unable to hold himself straight up. He eventually went home and went to bed. He felt rather faint in the afternoon but at no time up till this was he sick or nauseated. The pain was present in the right iliac fossa until the following morning when it extended a little over to the middle of the abdomen. On the evening of the day of his first pain he was given a dose of castor oil, but the only effect of this was to make him very sick. He was seen by Dr Dewar the following morning when he had some distention of the lower part of the abdomen and considerable tenderness and pain, particularly on the right side. His temperature was raised to 99.2° F., his pulse was 110. There had been no further vomiting, but the patient looked ill at this time and was recognised clearly by his own doctor as an abdominal catastrophe.

I was asked to see him then. He was tender per rectum, apparently more on the right side than the left. The tenderness abdominally was fairly diffuse, although it seemed to be most marked over M'Burney's point. Although it was a very atypical history, one thought it was probably an appendicular lesion. At the operation, therefore, which was done immediately, a gridiron incision was made. On opening the abdomen, a large amount of serous fluid escaped and a black gangrenous coil of ileum was soon evident. On further exploration, this was seen to be fairly extensive and accordingly a right paramedian incision was made. It was then seen that a good many feet of the lower part of the ileum had twisted on their mesentery and were at that time gangrenous. This mass was firmly tacked down to the posterior abdominal wall by the twist and as the bowel looked as if it might easily perforate, considerable care had to be taken in undoing to some extent the twist to give enough room to do a radical operation. The bowel was resected and this is the specimen that was removed. It consists of about 8 feet of the lower end of the ileum, the distal portion being close up to the ileo-cæcal valve. This was resected and an ileo-transverse-colostomy was carried out.

A drain was put in, more perhaps because of the horrible dead-like smell that the gangrenous ileum produced than because there was any fear of sepsis from the portion of ileum. This was removed in twenty-four hours and the patient made a complete recovery. Indeed, he never gave us any anxiety from the time of the operation.

It seems curious that only a small portion of the small bowel should be twisted. Apparently there had been a local overgrowth of the mesentery in its distal portion.

(2) Autogenous bone grafts for **ununited fracture of the radius**. J. M., aged 38. This case is of interest because of the number of operations that the patient has had to undergo to achieve a union of a fractured radius. He was wounded in 1915 at the Battle of Loos. The missile was an explosive bullet and a considerable part of the shaft of the radius was blown out. The wound naturally became very septic and it did not heal for thirteen months after its receipt. After it had healed the patient was left with a hand deviated very markedly to the radial side, and with shortening of tendons and a good deal of stiffness of the small joints of his hand. The condition of the arm before his first operation is as seen in this radiogram. It shows an ununited fracture of the lower part of the radius and a marked deviation of the hand.

His first reconstructive operation was done in 1920. This was a graft of bone from the tibia. It was not, however, successful, as the wound broke down and the graft was extruded.

The second operation that he had was in 1922 and a further tibial graft was attempted, and the X-rays that I show indicate that the graft was too short, it being practically no longer than the length of the gap between the two radial fragments. This resulted in non-union at both ends and the graft finally became completely absorbed. At this time the lower end of the ulna became very much more prominent, as is shown here, and added to his disability. It was therefore thought possible by the surgeon at that time that a piece of the ulna might be resected and used as a graft. This was accordingly done, but was no more successful than the others for it resulted in a flail forearm, there being no firm shaft of either ulna or radius now.

When I saw the patient in October last for the first time, the condition of the arm was very bad, there being practically no function possible in it. It was evident that there had been a lot of sepsis and I thought that the best thing to do would be to prepare the ground for his graft by a preliminary excising operation. This was done and all the scar tissue removed, and the bone was prepared for the future graft. This wound healed up without trouble and in three weeks' time a graft was taken from his tibia, a massive graft, which was sufficiently long to bridge the gap and have a bearing surface of about an inch and a half on either side of it, the lower end going right down to the wrist joint. He was put in plaster and remained in plaster for four months, at the end of which time there was a complete union of the bone. The present state of affairs is evident in the two X-rays that I now show. It will be seen that there is good union and that there is new formation of bone round the end of the graft.

His arm now has a considerable amount of function, but there is much yet that we can do for him. We can transplant his muscles for

his partial wrist drop and we can do a capsulotomy for the stiff metacarpal phalangeal joints. I have hopes that his condition will be very markedly improved yet.

Dr W. A. Alexander showed two examples of **recurrent Bell's paralysis** in boys. In one patient, aged 16, there had been four attacks in five years, two affecting the right and two the left side of the face. This patient now had a more or less complete paralysis of the right side and a paresis of the left. The distressing thing was that little improvement was taking place. The right maxillary antrum had been found to contain thin pus and had been washed out. No other septic focus was discovered. There had been no ear disease and chill had not been an exciting factor. In the other case, a boy of 12 years, there had been two attacks at an interval of eighteen months. On the first occasion the right side had been completely paralysed and on the second the left side. Recovery took place in a matter of two months. There was no history of ear trouble and no infective focus was demonstrated. Exposure to cold had been an undoubted factor on one occasion. The interest of the cases lay in the fact that both boys seemed to possess exceedingly vulnerable facial nerves. It was very extraordinary that in each case both nerves showed this vulnerability. No obvious explanation for this susceptibility suggested itself, but it was evident that it was important to eradicate possible toxic foci and to guard against undue exposure.

Mr J. W. Struthers showed (1) a patient after removal of **myoma from the wall of the stomach**; (2) a cretin after removal of **cystic adenoma from the thyroid gland.**

Mr J. M. Graham showed:—(*a*) **A Case of Bilateral Subclavian and Axillary Aneurysm associated with Cervical Ribs.**—The patient, Mrs H., aged 62, was first seen in August 1924 when she complained particularly of pain in the left arm. An obvious aneurysm about the size of a hen's egg was present in the third portion of the left subclavian artery. As both this vessel and also the right subclavian artery occupied a higher position in the neck than normal the presence of cervical ribs was suspected, and this was confirmed on X-ray examination. The presence of the aneurysm had been noted for the first time two months previously, and during this period it had increased in size. The patient stated, however, that she had suffered from pain, chiefly on the medial side of the left forearm, for a period of four years, and that she had frequently a feeling of cramp in the left hand. There was no history of syphilis, and the Wassermann reaction was negative.

As the aneurysm was increasing in size an operation for its relief was decided on, and was performed on 20.9.24. The left supra-

clavicular region was exposed by an angular incision, one part of which lay immediately above and parallel to the clavicle, while a vertical limb passed upwards along the anterior border of the trapezius. The aneurysm which was fusiform in type, was thin-walled and pulsated forcibly. The dilatation commenced where the vessel emerged behind the scalenus anterior, and its maximum diameter of two inches in vertical extent was immediately beyond this point. The dilatation extended downwards behind the clavicle to involve the upper part of the axillary artery. After retraction of the cords of the brachial plexus an incomplete cervical rib was felt embedded in muscle, and on the distal end of this the subclavian artery was elevated, the vessel at the commencement of the dilatation lying between the scalenus anterior muscle and the tip of the cervical rib. The distal portion of the cervical rib which was friable and grooved by the artery was removed. The scalenus anterior muscle was divided and a ligature of tape was applied to the first portion of the subclavian artery near its termination. No evidence of atheroma or of disease of the vessel was observed. The patient made an excellent recovery, and now all trace of the aneurysm has disappeared. The pain which she complained of in the arm has been completely relieved. No pulsation can be felt in any of the main vessels in the arm. Apart from the fact that the arm is distinctly thinner than formerly, no ill-effect has followed the ligation of the subclavian artery.

At the time of the operation on the left subclavian, in September 1924, distinct abnormal pulsation was noted in the third portion of the right subclavian and axillary arteries, but the degree of dilatation was slight and did not call for surgical treatment. In the three and a half years which have elapsed the dilatation has greatly increased and there is now present a large and strongly pulsating aneurysm involving the third part of the subclavian and the axillary arteries. The infraclavicular portion of the aneurysm is most prominent projecting forwards the pectoral muscles and forming a convex bulge in the floor of the axilla. A systolic murmur is heard throughout the extent of the aneurysm but no thrill can be elicited. The systolic blood-pressure in the radial artery varies with the position of the arm, being constantly reduced when the arm is adducted by the side and increasing in abduction or elevation of the arm.

The aneurysm lately has been increasing in size. The patient suffers comparatively little inconvenience from it, although she is conscious of the pulsation present and hears in the right ear an intermittent rushing sound synchronous with the pulse. Her symptoms have been mainly those of nerve pressure associated with cervical rib. In May 1924 she began to suffer occasional slight pain down the outer side of the upper arm. The pain has gradually become

more severe and is chiefly felt above the elbow but occasionally it extends from the middle of the upper arm downwards along the ulnar border of the forearm and hand to the little and ring fingers. The pain is felt both when the patient is up and when in bed, and is relieved by elevating the shoulder. She complains also of a certain amount of muscular weakness in abduction of the arm and states that occasionally there is a temporary loss of power in gripping with the fingers, especially when writing. By deep pressure behind the aneurysm at the root of the neck the resistance of the cervical rib can be felt and pressure on this causes immediate pain referred down the arm along the ulnar border of the forearm and hand.

The remarkable feature of the case is the occurrence of an aneurysm of both subclavian arteries related to and apparently caused by the pressure of cervical ribs. Few references have been made in the literature to the presence of aneurysmal dilatation of the subclavian artery in association with a cervical rib. It is more common to refer to the high position of the artery in such cases and to the risk of mistaking the unusually obvious pulsation for an aneurysm. The condition, however, has been recognised particularly by Halsted, who suggests that the aneurysm is preceded by narrowing of the subclavian artery by pressure of the rib or its fibrous band. In a series of experimentally narrowed arteries, Halsted succeeded in producing a dilatation, distal to the point of narrowing, similar to that observed distal to the cervical rib in a few recorded cases, and suggested that the dilatation is due to arterial degeneration associated with a fall in the pulse pressure beyond the point of compression.

The fact that the aneurysm is increasing in size is an indication for surgical treatment. It is proposed, therefore, to repeat the operation which has proved successful on the left side and to ligate the first portion of the right subclavian artery and at the same time to relieve the symptoms of nerve pressure by removing a portion of the cervical rib and its fibrous band.

(*b*) **A Case of Mikulicz's Disease.**—The patient, Mrs M., aged 66, had first noticed a swelling in the neck below the mandible on each side in May 1927. On her admission to the Deaconess Hospital on 30.8.27 a general enlargement was found to be present of all the main salivary glands and to a lesser extent of the lachrymal glands. The accessory salivary glands in the cheeks and palate were also enlarged. The patient's general condition was good and she had no special complaint to make except that she was easily tired and that her mouth was drier than formerly; occasionally also she felt some discomfort in the outer angle of the left eye. It was noted that the patient was suffering from glycosuria which was readily controlled by suitable dieting and insulin treatment. The lachrymal glands were

felt to be enlarged and firm, the right extending downwards for half an inch below the supra-orbital margin, while the enlargement of the left gland below was less obvious. Both parotid glands were enlarged and firm, the right gland being slightly the larger and extending from the zygoma downwards to the lobule of the ear and forwards for about $1\frac{1}{2}$ inches. The left submaxillary gland was of similar firm consistence and about the size of a hen's egg; the corresponding gland on the right side was also enlarged, but to a lesser extent, measuring $1\frac{1}{4}$ inches by $\frac{3}{4}$ of an inch. Both sublingual glands were enlarged and formed distinct firm elevations in the floor of the mouth. Inside the cheek on both sides, behind the angle of the mouth, a bluish red swelling was present about the size of a large bean; these swelling were fixed to the deeper tissues and were firm in consistence and painless. Two small firm nodules about the size of split peas were present on the surface of the palate on either side of the mid-line immediately behind the margin of the hard palate.

Examination of other systems failed to show any abnormality. The tonsils and the various groups of lymphatic glands and the spleen were not enlarged.

Examination of the blood showed a normal blood count with an absence of leucocytosis but with a slight degree of relative increase of lymphocytes. Polymorphs, 66.6 per cent.; Large and small lymphocytes, 30 per cent.; large mononuclears, 2.6 per cent; eosinophils, 0.6 per cent.

Examination of the blood recently shows a more pronounced relative lymphocytic increase. The differential count on 8.5.28 was—polymorphs, 52 per cent.; large and small lymphocytes, 36 per cent.; large mononuclears, 10 per cent.; eosinophiles, 2 per cent.

A small portion of the left submaxillary gland was excised for microscopic examination. The naked eye section showed only a limited amount of normal glandular tissue with the typical lobular arrangement. Microscopical examination showed certain areas with normal lobules but the greater part of the section was composed either entirely of lymphocytic tissue or of lobules diffusely infiltrated by lymphocytes. The appearances suggested replacement of the normal secreting tissue by lymphocytes and there was nothing to indicate a primary change in the gland tubules. In the process of infiltration the gland acini disappear first and the ducts tend to persist longer. No large mononuclear cells and no giant cells were seen. Although the individual glands were all firm to the touch there was no increase of fibrous tissue present. The enlargement of the glands and the change in their consistence is due entirely to the massive increase of lymphocytes thoughout their substance.

The clinical features presented by this case are characteristic of the

the condition as described first by Mikulicz in 1888. Practically nothing is known definitely regarding the ætiology of the condition. While in typical cases both the lachrymal glands and all the salivary glands are affected it is recognised now that the enlargement may be confined to a single gland or to a pair of glands or to a varying combination of the individual glands. The prognosis on the whole is favourable. The enlargement of the glands may subside spontaneously or as a result of treatment, or may persist indefinitely without seriously affecting the patient's health. Occasionally however cases are seen in which the lymphatic glands and the spleen also are affected, and in still rarer cases there is in addition the typical blood picture of lymphatic leukæmia. It is apparent therefore that the so-called Mikulicz's disease, as illustrated by this case, should be regarded as a clinical syndrome rather than as a clearly defined disease. It is stated that benefit may follow the administration of arsenic and iodides or exposure to X-rays or radium. In this case, although there was no history of syphilis and the Wassermann reaction was negative, a thorough course of arsenic was given intravenously through the kindness of Mr David Lees. The result of a particularly thorough course of treatment with arsenic has been comparatively slight and the glands remain enlarged much as they were before. Experience of a recent similar case of Mikulicz's disease confined to the lachrymal and parotid glands, in which remarkable improvement followed upon X-ray treatment of the glands applied locally, encourages the hope that similar treatment will be beneficial in this case.

Meeting—6th June 1928.

D. A. LOGAN TURNER, President, in the Chair.