slightly smaller than the right, and its processes are distinctly so; the heads of the humeri show similar changes; elbow-joints scarcely affected; wrist-joints slightly affected. The hands still show the deformity produced by the disease, and alone would afford unequivocal evidence of rheumatoid arthritis. Viewed laterally, there is a depression over the centre of the small bones of the wrist. The metacarpal bones are displaced towards the ulnar side (see plate). The proximal phalanges are over-extended (dorsi-flexed) on the metacarpals, and the two terminal joints are strongly flexed, producing a typical example of the deformity known as the claw hand, so frequently seen in the later stages of muscular atrophy or in ulnar paralysis. But the small joints of the hands are swollen and fusiform, with small irregular nodular outgrowths, and present the typical changes of rheumatoid arthritis. The hip-joints are practically normal. The knee-joints are distinctly affected, especially on the left side; they show the cartilages affected with patches of erosion and eburnation, and present irregular nodular outgrowths, with marked swelling of the lower fourth of the femur. Ankles: The articular surfaces are normal, except on each inner side of the astragalus, where there is some erosion of cartilage with polished bone. The joints show slight irregular nodular outgrowths. The bones and joints of the tarsus are for the most part normal, but the calcaneo-cuboid joint is affected, and more so on the left than on the right side. The tarso-metatarsal joints show only slight changes, but the metatarso-phalangeal joints are markedly affected, the peripheral joints more than the proximal. The terminal joints in both feet are ankylosed in the position of flexion (see plate), and show marked irregular outgrowth of the nodules all round the joints.

Through the kindness of Dr. Blaxall, I investigated in his laboratory the microscopic structure of small portions of the articular surface of the lower knee-joint, with the hope that traces might still persist of the special dumbbell-shaped bacillus found by Drs. Bannatyne and Wohlmann, of Bath, in cases of rheumatoid arthritis, and more particularly investigated by Dr. Blaxall. Sections of the cartilage of the condyles of the left femur showed distinct fibrillation of the matrix (as pictured by Ziegler in cases of osteitis deformans).¹

On staining some sections by the method recommended by Dr. Blaxall with gentian violet and aniline methylene blue for three to five days, and then examining under the high power of the microscope in the ordinary way, one observed small bodies resembling in number and appearance the minute bacilli described by him as occurring in cases of rheumatoid arthritis, but the evidence was so doubtful that one had reluctantly to come to the conclusion that the presence of the specific organisms in this case remained unproved.

It will be seen from the above description that unequivocal evidences of the pathological changes of rheumatoid arthritis are present in these bones. The cartilages and bones of the joints show degenerative changes associated with hyperplastic bony outgrowths, and present a picture which is pathognomonic. The eburnation and grooving of the articular surfaces, combined with nodular outgrowth and lipping of bone, is only found in cases of rheumatoid arthritis (osteitis deformans). Moreover, the widespread distribution of the effects of the disease, and its incidence chiefly in the joints of the hands, producing a characteristic deformity, places the question beyond doubt.

The changes in the articulation of the atlas and axis in the maxillary joint, in the knee-joints, in the joints of the hands or of the feet, are alone in each instance quite sufficient to justify a diagnosis of rheumatoid arthritis. It is interesting to notice, however, that in many so-called cases of symmetrical disease the incidence of the disease is slightly more on one side of the body than on the other. In this case the left side is chiefly affected.

With regard to the position of the terminal phalanges of the hands, the position assumed (so-called claw-shape) is not common in rheumatoid arthritis. In this particular case the left ulna had been fractured during life at the junction of its lower third and upper two-thirds; and therefore it is probable that the ulnar nerve may have become more or less involved, and determining a certain amount of ulnar paralysis, may

have alone produced on that side the very commonly associated claw-shaped deformity, or have determined the deformity produced by the affected joints.

In another case which I saw the disease affected the knee-joints only, and in this instance the pathological changes were so marked as to form one of the most striking and typical examples of the disease which could be seen anywhere.

In some bones showing changes of osteo-arthritis brought before the Pathological Society by Mr. F. S. Eve,² and dating from the XVIII Dynasty, that is, about 1300 B.C., changes due to periostitis were associated, but in the subject of the present note no such changes were observable.

It is interesting to find evidences of rheumatoid arthritis existing so long ago as 3,700 years B.C., and more especially in a country the climate of which offers one of the best therapeutic factors which we possess for the treatment of this particular disease. It is possible that the person affected in this case may have been merely a visitor to Egypt. intercourse between the Egyptians and Asiatics or Europeans was extremely common at this period of Egyptian history, and then, as now, persons frequently visited Egypt for the benefit of their health. But it is more probable, both from the characteristics of the skeleton itself, and from its having been found in an Egyptian cemetery, that the subject was an Egyptian. One has merely to observe how the modern Egyptians perpetuate the mode of living of their ancestors in being insufficiently clad, and constantly exposing themselves to varying changes of temperature and moisture, to realise how a disease whose chief causal factors are damp and cold may have originated.

As far as I have been able to find in medical works the above subject is more than 2,000 years earlier than any previously recorded case.

REFERENCES.

- ¹Bannatyne, *Rheumatoid Arthritis*, 1896, p. 72; Ziegler, *Lehrbuch der allgem. Path.*, Band II, 1895, p. 223. ²Bones of Ancient Egyptians showing Periostitis associated with Osteo-Arthritis and Symmetrical Senile Atrophy of the Skull, *Trans. Path. Soc.*, 1890, vol. xli

CARCINOMA OF PYLORUS: PYLORECTOMY.*

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THE operation of pylorotomy for cancer has not, to use a homely phrase, taken hold in the profession to an extent at all comparable with many other modern achievements in abdominal surgery. The difficulties and the uncertainty attendant upon an early diagnosis, the rapidity with which in many instances at least the disease spreads along the walls of the stomach and duodenum, and the consequent magnitude of the mutilation necessitated in its removal, the frequent absence or abeyance of unequivocal symptoms until the very last stages of the disease have been reached, the early infection of associated glands, the marked cachexia and low vitality which characterise a large proportion of the subjects of this disease, are amongst the most potent reasons for this halt in the general acceptance of the operation as an established mode of treatment. If only we could diagnose with certainty pyloric cancer in its early stages, whilst still it is limited in extent, and before it has commenced to disseminate its products, at a time, too, when the patient's powers are but little impaired, the cases already on record sufficiently testify to the immense value of the operation. A patient upon whom I operated in December, 1891, and whose history is given in the *BRITISH MEDICAL JOURNAL* of January, 1895, is still in robust health and suffers no inconvenience whatever from the removal of her pylorus.

The case I am about to relate—albeit two at least have been published in which more extensive removals were effected—presented by far the largest growth I have ever attempted to remove, and on this account, as well as for other reasons, is deemed worthy of being recorded.

History.—Mrs. D., aged 28, was sent on May 4th, 1896, by Dr. Hogarth, of Morecambe, with a note, in which he informed me that the patient gave a history of daily vomiting

* Read before the Yorkshire Branch at Scarborough.

for a period of three months, and of loss of weight to the extent of 2 st.; that he found a largely dilated stomach; that he felt an oblong, rather large, swelling in the right umbilical region; that he had on one occasion seen half a chamber-pot full of vomited matter, and that he diagnosed pyloric tumour with obstructive dilatation of stomach. The patient's statement was briefly that her ailment, extending over a period of nine months, had been characterised at first by pain and flatulency after every meal, then by vomiting at varying intervals, the vomited matter consisting in the earlier stages of the constituents of a single meal, and latterly of the accumulations of several days' food, and by an ever-increasing loss of strength and flesh, represented by a fall from 10 st. to 7 st. 5½ lb. On inspection the stomach, in a state of visible peristalsis, was seen to occupy a space represented by fully one-fourth of the abdominal surface, and at its right end an oblong tumour could be distinctly seen and felt through the thinned abdominal wall.

First Operation.—I will mention only the salient points of the operation, which was performed on May 11th. The abdomen was opened in the middle line by an incision extending from 2 inches above to an inch and a-half below the umbilicus. The tumour was found in the pylorus, and was approximately the size of a tangerine orange, but extensively infiltrating the lesser curve of the stomach. The growth was isolated by passing elastic tourniquets round the stomach and duodenum, and was removed by scissors. Several bleeding points, especially in the omentum, required ligature. The large opening into the stomach was partially closed from below, and at the upper extremity of the wound an opening equal in size to the duodenal lumen was left. The wound in the stomach was oblique owing to the implication of the upper border. The duodenum and stomach were united by two continuous sutures, one for the mucous membrane and one for the peritoneum. No artificial aids were used. From first to last the operation extended over one hour and forty minutes.

After-history.—The following points only in the after-history are of any importance. For the first three nights ½ grain of morphine was injected. Sickness, which was singularly free from distress, lasted five days. On the second day soda-water and milk was given by the mouth. On the eighth day she sat up in bed. On the twenty-second day she ate lamb and mint sauce and green peas for dinner. Recovery was complicated by an attack of phlebitis in the left leg on the thirteenth day. On June 15th, five weeks after the operation, she returned to her home. On June 29th she reported herself as weighing 8 st. 5 lb., in the enjoyment of an ordinary diet, and daily gaining strength. On May 11th, 1897, the anniversary of her operation, she presented herself for my inspection. Her weight then had increased to 9 st. 6½ lb., and she had the appearance of a person in good health; but whilst an ordinary dinner was readily digested, she had occasionally vomited after eating fat ham. On July 7th this year, Dr. Foster, of Shipley, who was then in charge, summoned me because of a rapid onset of severe symptoms. For a month vomiting had been gradually on the increase, and for a fortnight had been very frequent, so that she had again fallen off very seriously in strength and in appearance. In the epigastrium we could feel a hard fixed lump of considerable size. It is interesting to observe that on one occasion the amount vomited measured a little over a pint.

Second Operation.—At the urgent wish of herself and her friends she was removed to Leeds for further operation, and on July 12th I again opened the abdomen. My expectation of finding a return of the disease was not verified. A tongue of liver, measuring approximately 2 inches long by ¾ to 1 inch broad, was found adhering anteriorly to the abdominal wall and posteriorly to the cicatricial union of duodenum and stomach, thus forming a tumour-like mass, in which, however, I could find no trace of growth. After separating the hepatic process from its peritoneal adhesion in front, I divided it with scissors, leaving its apex attached in its new position, and cauterised its cut surface to the arrest of hæmorrhage. This procedure allowed the stomach to descend in the abdomen; and as then, upon examination, it appeared that a sufficient release had been effected, and that the union between duodenum and stomach remained firm and efficient, I decided to close the wound. Two days later the patient sank.

REMARKS.

I will only detain you long enough to remark upon (1) the extent of the operation, which involved the removal of at least one-third of the stomach, besides a portion of the duodenum; (2) the simple method adopted of uniting the duodenum with the stomach, without the aid of plate or bobbin or button; (3) the rapid recovery from the first operation, and the readiness with which the stomach resumed its functions; (4) the absence of recurrence at the end of fourteen months; and (5) the encouragement the case affords in dealing even with extensive and advanced disease by radical means.

A CASE OF SPONTANEOUS DISAPPEARANCE OF A CONGENITAL CYSTIC LYMPHANGIOMA.

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An impression has long existed among members of the medical profession that cystic tumours of the neck may disappear spontaneously. But the impression, so far as I can ascertain, is based upon the rarity with which these tumours are seen in adults rather than upon the record of any individual instance where such a disappearance has been actually observed. The present case, therefore, is exceptionally interesting, for the tumour has absolutely and entirely disappeared without leaving any trace of its existence; moreover the progress of the child has been watched throughout by careful and competent observers.

L. E. was born in January, 1888, and the hygroma was noticed directly after his birth. It was attributed by his mother, a most sensible woman, and herself the daughter of a medical man, to a maternal impression received during the third month of pregnancy. The tumour remained stationary for a time, but it began to grow when the child was 6 months old, and when he was 14 months old he came under the care of Mr. Edmund Owen, who published an account of the case in his *Harveian Lectures*.¹ The growth at that time (Fig. 1)

Fig. 1.—L. E., aged 11 months.

occupied the whole of the left side of the neck, reaching upwards behind the pinna of the ear—the lobule of which it had invaded—and extending across the middle line of the front of the neck. Mr. Owen recommended that the tumour should be tapped, and this was done by his ordinary medical attendant about 150 times in the course of the next seven years. The tumour, however, underwent very little change (Fig. 2) in size, and though it did not increase proportionately with the growth of the boy it got no smaller.

The patient was brought to me in August, 1896. The skin over the swelling was then quite healthy, except for the minute scars of innumerable punctures. The tumour beneath it consisted of an elastic