

at most, the whole of one lobe or severe disease extending at most to the half of one lobe; such cases would still be called of moderate severity. Group III. includes all cases of greater severity than Group II. and all those with considerable cavities; these are more serious cases.)

Conclusions to be Drawn.

Looking first at Table I.—the non-laryngeal cases—we note that of course the percentage of deaths is lowest in the cases of Group I., that it is more than doubled in Group II., and that in Group III. 70 per cent. are dead within seven years. Of all three groups together and both sexes 39·7 per cent. have died within this period of observation.

Now, comparing with these results the cases in Table II.—i.e., those with the larynx involved—what do we find? The first thing which strikes us is that the prognosis as shown by the percentage of deaths is rendered graver in both sexes and in all three groups. In the case of Group I. the percentage rises from 15·6 per cent. to 42·9 per cent., and in Group II. it rises from 38 per cent. to 63·3 per cent. In Group III. the increased mortality is not so striking—viz., from 70·4 per cent. to 78·3 per cent.—and this is what we would expect—viz., that in advanced cases the outlook is already so serious that a further addition to it is not noticeable. Taking all three groups together the presence of tuberculosis in the larynx raises the percentage of deaths during the 3–7 year period from 39·7 per cent. to 68·9 per cent. Put in other words, amongst all the fairly early cases of pulmonary tuberculosis admitted to a sanatorium the expectation is that 60 per cent. of them will be alive in three to seven years later. But of similar sanatorium patients with the larynx diseased only 30 per cent. will be alive at the end of that period.

We also note in Table II. that, just as in non-laryngeal cases, the percentage of deaths is higher in Group II. than in the early cases of Group I., and still higher in the advanced cases in Group III. But it is very striking to observe that the ratio of the death-rate in these three groups to one another is no longer the same as in Table I., for in Group II. the deaths are no longer more than double those of Group I., but only half as many again; and in Group III. the frequency of death is only slightly in excess of the figures of Table I. Moreover, whereas in the non-laryngeal cases the death-rate of the early cases of Group I. was less than a fourth of those in Group III., we see that in the laryngeal cases of Group I. the proportion of deaths has risen to more than a half of those in Group III. This surely shows that, even in a slight and early case of pulmonary tuberculosis—a Group I. case—the detection of a laryngeal lesion renders the prognosis more gloomy than in a case of more advanced pulmonary infection with a free larynx. Put in another way, if a case, whose pulmonary condition warrants the patient being classified in Group I., is discovered to have a laryngeal lesion, this would at once grade him down to Group II. It also demonstrates that in cases whose pulmonary condition would place them in Group II., so that only 38 per cent. would be dead within seven years, the involvement of the larynx lowers their prognosis to nearly that of the Group III. cases, and 63·3 per cent. will be dead within the period of observation.

Other conclusions might be drawn from these tables, as for instance, that—

The proportion of laryngeal cases amongst all admissions to a sanatorium is ...	22·2%
The incidence of laryngeal disease amongst males being ...	21·5%
The incidence of laryngeal disease amongst females being ...	23·3%

We might even refer to the greater mortality amongst males than amongst females, whether with or without laryngeal lesions. But I refrain from the temptation to squeeze too much out of insufficient material, particularly as I hope to publish, later on, a study founded on 10 years' sanatorium work.

As, at all stages of pulmonary tuberculosis, so much depends on the prognosis, it is sufficient if I have shown the importance of a skilled examination of the larynx. One glance into a laryngeal mirror will often show that—

“a man may prophesy,
With a near aim, of the main chance of things
As yet not come to life”—(*Henry IV.*, Part 2, iii., 1)

much more correctly than he can from all other clinical investigations without it.

A CASE OF ANKYLOSTOMA DUODENALE WITH PYLORIC OBSTRUCTION.

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Introductory Note on the Case by

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LATE CONSULTING SURGEON TO THE SOUTHERN COMMAND.

THE pyloric obstruction was the obvious cause of the vomiting in the case recorded below, and the movable mass to the right of the median line suggests a new growth. A new feature was, however, presented when the patient passed large masses of the ova of the *Ankylostoma duodenale*. These were sufficient to give a definite character to the stools and attract the notice of the nurses. Though the evacuation was not accompanied by any change in the tumour, the question arose whether there might not be ulceration caused by the ankylostoma with surrounding induration.

Clinically the mass resembled a pyloric cancer in outline, mobility, and situation, but might equally well be due to induration round an ulcer. Though malignant disease may occur early in the pylorus—there are several cases recorded under 30 and one at 24—his age was in favour of an ulcer, as was the hæmatemesis. The findings at the operation, fully described by Captain Soltau, support the non-malignant character of the enlargement. The disease was strictly limited at the pylorus, and involved both aspects of the stomach; it also extended for an inch or more along the lesser curve, resembling in this respect a malignant growth. The white plaques described by Captain Soltau were small, quite flat, not raised so as to be felt, and were scattered over the indurated area. They resembled those seen in simple inflammatory conditions rather than the nodules of cancer or tubercle. Another point against cancer was the absence of enlarged and cord-like lymphatics passing towards the lesser curvature. These infected lymphatics are usually present in such extensive disease, and their absence I would take as strong evidence in favour of simple ulceration. The palpable glands were oval in shape, elastic, and few in number. The small, hard, numerous glands so characteristic of malignant disease were absent. The gastro-hepatic omentum had not become thickened and shortened as in some pyloric ulcers. This, when advanced, anchors the tumour and may draw it up so far as to render it impalpable. When such an omentum is found at an operation, especially if the surface be smooth, a favourable view is justified. Lastly, the adhesion to the gall-bladder and liver is in favour of a simple condition, more especially as there were no nodules bordering on these adhesions.

Account of Case.

The patient whose history is here related was admitted to hospital in England in April of this year, after evacuation from the Egyptian Expeditionary Force.

J. G., a man of 22, had been in Egypt for the previous 18 months. In June, 1918, he was admitted to hospital with symptoms of dysentery—diarrhoea, with stools containing blood and mucus. Improvement followed a course of emetine, but after four weeks out of hospital he was readmitted in December with the same symptoms as before, but also with hæmatemesis, which continued for three days. Vomiting continued off and on for the next five months, but there was no more hæmatemesis, and the dysenteric symptoms soon ceased. On admission to hospital in England the patient presented an extremely anæmic and emaciated appearance. Weight just over 6 st. He complained of pain in the epigastric region and of vomiting. No diarrhoea. No blood in stools, but flecks of mucus present. The pain was referred to the pyloric region; it was sharp in character and worse at night, but occurred chiefly about an hour after feeds, and was relieved by a further drink of milk. Vomiting occurred once every 24 hours and consisted of the partially digested food of previous meals, but no blood. With daily stomach lavage this improved, until vomits recurred only at two- or three-day intervals. Examination of his abdomen revealed marked tenderness and resistance in the right hypochondrium. A rounded swelling could be felt, inti-

mately connected with the lower border of the liver and extending towards the middle line and slightly upwards, along the line of the lesser curvature of the stomach. Liver not enlarged. Spleen not enlarged. Urine normal. No œdema of ankles. The stools were formed, but contained numerous flecks of mucus. Bacterial examination on April 17th showed: "Absence of pathogenic bacteria, but large numbers of ova which, on cultivation, yielded the typical rhabditiform larvæ of *Ankylostoma duodenale*."

Thymol treatment—gr. 30 in two doses, preceded by sod. bicarb. and followed by mag. sulph.—was given. Three days later ova were still present, and thymol was again given. The stools were negative, but ova were again present on May 2nd. After two more days of thymol all subsequent examinations of stools were negative.

Examination of blood on May 5th showed:—Reds: 2,976,000 per c.mm. No abnormal cells or parasites present. Hæmoglobin, 60 per cent. Colour index, 1.03. Leucocytes: 5486 per c.mm. No abnormal cells. Polymorphonuclears, 72 per cent.; lymphocytes, 22 per cent.; eosinophiles, 0 per cent.; large mononuclears, 3 per cent.; transitionals, 3 per cent.; mast cells, 0 per cent.

Although apparently free from hookworm infection, the patient's condition did not improve. The vomiting increased, and the abdominal tumour became much more obvious. Waves of contraction from the cardiac end of the stomach could be seen passing down to it. Accordingly an exploratory laparotomy was decided on, the provisional diagnosis being: "Pyloric obstruction, due to an inflammatory mass following ulceration in duodenum or pylorus caused by hookworms; probably requiring gastro-enterostomy."

Operation.

On May 26th the abdomen was opened. There was no free fluid in the general peritoneal cavity. Extending from the duodeno-pyloric junction towards the mid-line and involving the lesser curvature for about 2½ inches was a large mass firmly adherent to the liver, gall-bladder, and pancreas. On the surface and extending on to the anterior surface of the stomach were many small white irregularly shaped patches resembling in appearance an aphthous stomatitis. These patches were not raised or hard. No enlarged glands were felt in the mesentery, but the glands in the lesser gastro-hepatic omentum were palpable. In order to relieve his obstruction, posterior gastro-enterostomy was performed. The result was most encouraging. The patient only vomited once, soon after the operation, and never looked back. On June 30th his weight was 7 st. The tumour could then still be felt and did not seem to have altered in size or shape.

A blood examination at that time showed a marked improvement:—Reds: 4,624,000 per c.mm.; hæmoglobin, 60 per cent.; colour index, 0.65. Leucocytes: 8750 per c.mm.; polymorphonuclears, 66.5 per cent.; lymphocytes, 27.0 per cent.; eosinophiles, 0.5 per cent.; large mononuclears, 5.5 per cent.; transitionals, 0.5 per cent.; mast cells, 0.0 per cent. The patient steadily improved, and his weight was considerably over 8 st. when he left hospital in July.

Points of Interest.

The following points are of interest: 1. The onset, with dysenteric symptoms and improvement under emetine. 2. The hæmatemesis two months later, which lasted for three days only and never recurred. 3. The presence of a tumour—probably a direct result of the invasion of the pyloric wall by the hookworm—causing obstruction. 4. The distribution and character of the tumour. 5. The amount of thymol which had to be given before a final negative result was obtained—two doses of gr. 30 each are sufficient in nearly 90 per cent. of all cases. 6. The similarity between the blood count and that of pernicious anæmia, the diminution of reds and the high colour index, and the marked improvement of the anæmia as the result of the relief of the obstruction. 7. The complete absence of eosinophilia.

KING'S COLLEGE HOSPITAL MEDICAL SCHOOL (UNIVERSITY OF LONDON).—The following elections to scholarships, each value £50, have been made: Pathology and Pharmacology Scholarship, H. A. Osborn; Anatomy and Physiology Scholarship, R. O. Lightwood; Arts Scholarship, A. L. Moorby; Science Scholarship, L. I. Hyder.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.—A general meeting of the association will be held at 11, Chandos-street, Cavendish-square, W., on Friday next, Oct. 24th, at 4.30 P.M., when Dr. A. A. Mumford will read a paper on the Standardising of Physical Efficiency during Growth, and Colonel Martin Flack, R.A.F., will open a discussion upon the subject. All interested are invited to the meeting.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF SURGERY: SUBSECTION OF ORTHOPÆDICS.

Exhibition of Cases and Specimens; Coxa Vara after Reduction of Congenital Dislocation of Hip.

A MEETING of this section of the Royal Society of Medicine was held on Oct. 7th, Mr. E. MUIRHEAD LITTLE, the President, being in the chair.

Mr. E. LAMING EVANS showed a case of Coxa Vara after reduction of congenital dislocation of hip.

The patient was 12 years of age. In March, 1913, Mr. Evans had reduced by manipulation a left-sided congenital dislocation of the hip. The reduction presented no difficulty, and an X ray examination after reduction showed no evidence of trauma, either at the epiphyseal line or in the neck of the femur. Retention was effected by a series of short unilateral plaster spicas in 90 degrees of abduction and 50-70 degrees of flexion for 18 months. This degree of flexion was necessitated by a tendency to anterior transposition. During the last 12 months of plaster retention the child walked on a 5-inch patten on the left or affected leg. After the plaster was removed a 1½-inch patten was used on the sound side to maintain abduction of the affected side. When the plaster was removed the affected leg measured 20½ inches, and the sound leg 21 inches. The child had been kept under observation, and a series of 12 X rays had been taken during the 6½ years of treatment. Six years after reduction the left leg measured 25½ inches, and the right 26 inches. Six months later the difference had increased to ½ inch, and the X ray showed a varal deformity of 100 degrees, occurring at the junction of the neck and great trochanter. The epiphysis was seen correctly placed upon the neck, and situated correctly in the acetabulum and underlying a well-formed roof. The occurrence of coxa vara after reduction of congenital dislocation of the hip had an important bearing upon the functional result of a successful reduction. It produced a limp from shortening of the leg and from gluteal insufficiency, which, though of different origin and of lesser severity than that of unreduced dislocation, was, nevertheless, regrettable, and should be avoided if possible. The recognised causes had been classified under five heads: (1) trauma inflicted at the time of reduction, either upon the epiphysis or on the femoral neck; (2) prolonged weight-bearing, either before or after reduction; (3) absence of ossification in the head of the femur; (4) absorption of the ossific centre, which had appeared; (5) acute traumatic reflex atrophy. That coxa vara was a not uncommon complication of successful reduction of congenital dislocation had been shown by Joachimstal, Horvath, and others. The points of interest in the present case were the remote period—i.e., six years—after reduction and the site of bending, which was at the junction of the neck and great trochanter. The functional disability with 100 degrees of varal deformity was slight, but necessitated further observation and treatment by a perineal crutch if it proved to be progressive.

Mr. H. A. T. FAIRBANK thought that the X ray suggested the presence of injury to the neck of the femur close to the epiphyseal line which might have influenced the coxa vara later. An increase in the inferior surface of the neck which was frequently seen in these cases often gave the appearance of coxa vara. With regard to treatment, he thought that the indication was to keep the weight off the leg.

Sir C. GORDON WATSON thought that the condition corresponded to a rickety softening with bending of the neck at the junction of the neck with the shaft.

Congenital and Paralytic Scoliosis.

Mr. P. B. ROTH showed two cases of Secondary Scoliosis, the one due to paralysis of the erector spinæ, the other to congenital malformation of the spine.

The first case was that of a child, aged 8 years, who was first seen by Mr. Roth at the end of 1918. She had been strong and healthy until the latter part of 1916, when, after a few days' drowsiness and loss of appetite, followed by feverishness and vomiting, she was found to be completely paralysed in both legs and was taken to hospital, where she was under treatment for two years. She had massage for the legs, and after spinal curvature developed was ordered a jacket, and later was put into plaster-of-Paris. The deformity had become very marked. On examination there was found severe paralysis of the right erector spinæ muscle and scoliosis, with the convexity to the right; there was deformity of the right ribs posteriorly, whilst the upper