Thus, in the first thousand :

TABLE I.

Variety.	Postural (that is, no Bony De- formity).	Osseous (that is, with Bony Deformity due to Vertebral Rotation).				Total (Pos- tural and Osseous).
		Trace.	Mode- rate.	Severe.	Extreme.	
1. Ordinary C	81	104	276	61	1	523
2. Reversed S	1	21	152	121	34	329
3. Ordinary S	2	7	23	10	3	45
4. Reversed C	13	8	32	16	3	72
5. Ordinary epsilon	—	1	13	14	—	28
6. Reversed epsilon	—	—	1	1	1	3
	97	141	497	223	42	1,000

In the second thousand :

TABLE II.

Variety.	Postural (that is, no Bony De- formity).	Osseous (that is, with Bony Deformity due to Vertebral Rotation).				Total (Pos- tural and Osseous).
		Trace.	Mode- rate.	Severe.	Extreme.	
1. Ordinary C	69	75	365	47	6	562
2. Reversed S	3	19	122	120	25	289
3. Ordinary S	—	7	44	20	7	78
4. Reversed C	10	5	25	9	1	50
5. Ordinary epsilon	—	—	9	10	1	20
6. Reversed epsilon	—	—	—	1	—	1
	82	106	565	207	40	1,000

Combining the results in Tables I and II, the following figures are obtained for the 2,000 cases :

TABLE III.

Variety.	Postural (that is, no Bony De- formity).	Osseous (that is, with Bony Deformity due to Vertebral Rotation).				Total (Pos- tural and Osseous).
		Trace.	Mode- rate.	Severe.	Extreme.	
1. Ordinary C	150	179	641	108	7	1,085
2. Reversed S	4	40	274	241	59	618
3. Ordinary S	2	14	67	30	10	123
4. Reversed C	23	13	57	25	4	122
5. Ordinary epsilon	—	1	22	24	1	48
6. Reversed epsilon	—	—	1	2	1	4
	179	247	1,062	430	82	2,000

6. PAIN.—In 916 cases pain was present; slight in 282, moderate in 250, severe in 384.

7. FLAT-FOOT.—This was present in 1,225 cases. In 933 of these cases the arch was restored by standing on tiptoe. In 292 cases the arch was not so restored—that is, they were cases of severe flat-foot.

In the book and articles cited will be found a full explanation of the terms used in this analysis.

REFERENCES.

¹ *Treatment of Lateral Curvature of the Spine.* By Bernard Roth. Second Edition. H. K. Lewis, 1899. ² Report on a Thousand Consecutive Cases of Scoliosis, BRITISH MEDICAL JOURNAL, September 2nd, 1911. ³ Paper on Scoliosis, *London Hospital Gazette*, December, 1911.

LEFT-SIDED SUBPHRENIC ABSCESS DUE TO PERFORATED DUODENAL ULCER.

BY

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THE following is an account of a case of subphrenic abscess, consequent upon rupture of a duodenal ulcer, which in many respects shows a striking similarity to that narrated by Dr. H. D. Rolleston in the JOURNAL of February 24th.

In both instances the abscess was left-sided, in both it was duodenal in origin, and in each case free gas was found to the right of the falciform ligament of the liver and purulent fluid to its left. My patient, however, was a young woman, his a man somewhat advanced in years.

A female servant, aged 23, was admitted to St. Thomas's Hospital on January 26th, 1899, and, in the absence of Dr. Sharkey, came under my care.

The history obtained was meagre, on account of her serious condition. We ascertained that she had never suffered from hæmatemesis or melaena but was subject to constipation, the bowels acting very irregularly. Six weeks prior to her admission she was laid up for three or four days with what was supposed to be pleurisy. She made a partial recovery, and went to stay with some friends. Six days before admission she experienced severe pain in the abdomen and felt very ill. She was kept in bed for a week under medical advice, and at the end of that time was sent up to hospital as a case of "pneumonia with pleurisy." There had been no vomiting, the bowels had acted freely, and plenty of urine was passed.

When admitted, she was found to be of good physique, but extremely collapsed and slightly cyanosed. Her pulse-rate was 156, the respirations were 58, and the temperature 99.2°. Her complaint was of pain in the left side of the thorax and in the abdomen.

The belly was tender and distended; its movements were in abeyance. The liver dullness, internal to the nipple line, was replaced by resonance. The flanks showed slight signs of fluid. In the lower left axilla the percussion note was dull, and this dullness merged with dullness in the left flank. The breath sounds at the base of the left lung were suppressed and a few crepitations audible.

The condition of the patient was very bad. No prolonged examination was possible, and no exploratory operation could be undertaken. She died within twenty-four hours.

Necropsy.

At the necropsy a considerable amount of free gas was found in the peritoneal cavity. There was but slight generalized peritonitis, and the lesser sac had escaped infection.

Under the left wing of the diaphragm and around the spleen lay an old abscess cavity, the walls of which were lined by a thin grey exudate. The abscess extended along the upper surface of the liver as far as the falciform ligament, by which it was limited to the right. It was shut off from the lower abdomen by the mesocolic shelf and costo-colic fold. Thus on the right side of the falciform ligament was free gas, on the left side pus.

The duodenum was surrounded by adhesions. On its anterior wall, immediately beyond the pyloric ring, was a small perforation which lay in the base of an ulcer the size of a threepenny piece. The ulcer had shelving walls.

The lower lobe of the left lung was entirely collapsed, and it was easy to trace the extent to which the uplifted diaphragm had brought the walls of the pleural sinus together; the apposed portions of the pleura were anaemic and the parts above congested. The upper limit of contact was almost horizontal round the thorax, and its level corresponded accurately to the lower margin of the fifth rib in the axillary line.

When discussing his case Dr. Rolleston remarks on the rarity of left-sided subphrenic abscess as a sequel to duodenal perforation, and quotes some remarks from an address I gave on the watersheds of the peritoneum.¹ The case related above was one of a number I had before me when I prepared that address, and was the instance on which my remark as to leftward spread was based. It was the first in which I had found a left subphrenic abscess consequent on duodenal ulcer, and is the only one in which I have seen such a strictly localized left-sided collection result. I have, however, my *post-mortem* notes on another patient, a man aged 25, who was under the care of Dr. Sharkey, also in 1899, and in whom a ruptured duodenal ulcer caused an accumulation of sour and turbid fluid under the left wing of the diaphragm and also in the pelvis.

The factor which determines the gravitation of the infective fluid in such cases is the relation which the

duodenum bears to the mesial abdominal watershed formed by the forward projection of the vertebral bodies. Since the perforation, or, to speak more correctly, the rupture of an adhesion, usually occurs to the right of this watershed, the extravasated fluid tends to gravitate towards the right renal well (subhepatic fossa) or to invade the right subphrenic space. In those exceptional cases where the duodenum occupies a mesial position, or even lies a little to the left of the mid-line, the fluid tends to gravitate to the left, into the stomach chamber, and gives rise to an abscess under the left wing of the diaphragm.

Dr. Rolleston conjectures that adhesions may be responsible for the unusual site of the abscess in such cases, and this may well be so, but only, I submit, in so far as they may fix the duodenum in an abnormally leftward position. In other words, it is the slope at the side of the spine, and not the guiding constraint of the adhesions, which directs the infection to right or left as the case may be. In the first case recorded above the duodenal matting was rather extensive, but in the second case mentioned (Dr. Sharkey's) no adhesions were found. In this second case, too, I have a note of the position of the duodenal perforation; it lay nearly in the mid-line and was quite uncovered by the liver.

In the second case, as in the first, the contrast between the anaemic and injected portions of the pleura was evident, the line between the two being at the upper level of the sixth rib in the mid-axilla, so that in both patients the collection could have been evacuated by the lateral transpleural route on resection of portions of the sixth, or, better, seventh rib.

In justice to Dr. Jenkins and my colleague, Mr. Maynard Smith, I must repeat that the description of the most posterior part of the left subphrenic space, quoted by Dr. Rolleston from my address, is theirs and not mine.

REFERENCE.

Lancet, March 26th, 1910.

OPERATION FOR DECOMPRESSION: RECOVERY.

BY

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THE patient in the following case, a gardener aged 25, was admitted to the Cottage Hospital, Southwold, on June 25th, 1907. His family history was good and his own health had been excellent until April, when headache and dizziness had commenced; he had gradually grown worse.

When admitted his headache was constant, and vomiting, without retching, occurred at intervals. He walked somewhat unsteadily, with feet well apart, and complained of dizziness. His eyesight was unaffected and the pupil reflexes normal. Pulse 46; temperature subnormal. A diagnosis of cerebral tumour was made, and he was treated with mercury and potassium iodide. He gradually became worse. At the end of July his position was as follows:

The headache was extreme, requiring $\frac{1}{4}$ grain of morphine hypodermically, nightly. Optic neuritis was present in both eyes; he was unable to read, and even pictures looked blurred and indistinct. There was no strabismus, but nystagmus was present on lateral movements of the eyes, in particular when made towards the right. No diplopia. Co-ordination of the right arm was bad; left arm normal; right arm and leg were weaker than left. He was unable to get on his feet, but when assisted to rise his gait was very uncertain and stumbling, with tendency to fall to right side at every few steps. With feet together and eyes shut he swayed to right.

Tumour of the right cerebellum was diagnosed, and on August 5th I removed a portion of bone $2\frac{1}{2}$ in. long and $1\frac{1}{2}$ in. wide over the right cerebellar region, and, as his condition was good, I incised and removed bulging dura mater. No tumour was evident, so I closed the wound without replacing the bone. He stood the operation well and the headache at once disappeared, but there was still slight sickness, considerable inco-ordination of the right arm, and marked diplopia.

On October 4th he could walk without a stick and was much improved, and was discharged.

In August, 1908, he returned to work and obtained a post as head gardener at an hotel in Southwold, which he still holds.

At present (October, 1911) his condition is most satisfactory. His gait, sight, and co-ordination are normal. He has had no headache since the operation nor any bulging at the site of the latter. Nystagmus is still present to a very slight degree when the eyes are moved to the right, and he complains of slight dizziness when his head is dropped backwards (in a barber's chair), but he can work as hard as ever and gives complete satisfaction to his employers.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A RAPID METHOD OF DIAGNOSIS IN MALARIA.*

It has often been said to me that it is impossible to examine every case of malaria in out-patient practice, owing to the length of time required; but I feel that in order to become thoroughly acquainted with the diseases of any locality this is necessary. The following is a method which I have found useful in practice:

Thick films are made on the slide without even a cover-slip, so thick that the blood when allowed to run to one side is seen of a bright red colour. This is rapidly dried and examined directly under a drop of cedar oil and a $\frac{1}{2}$ in. immersion. The drying of this film causes the only delay. In a dry country such as Persia films will dry in the open air without any special treatment in about half a minute. In a damper climate they should be exposed to the sun turned upside down. In damp and cold weather they should be dried gently over a spirit flame. In any case one can begin the examination before the whole film is dry, and very often the information got is sufficient before the thicker edge is properly "set."

I have often proved the existence of malaria, verified, of course, by a properly stained slide, in one minute by the watch from the time of drawing blood. The thicker part of the film is best examined first, and from the character of the pigment the species of malarial parasite can, after a very little practice, be diagnosed in most cases with great ease, almost as easily as in a wet film. The diffuse and fine dots of tertian, the compact and coarser dots of quartan, and the peculiar arrangement of the pigment in the crescents in tropical malaria are very characteristic, not to mention pigmented leucocytes. They are as well seen as in a wet film, the chief point being to be sure that the pigment is on the same level as the red corpuscles, and disappears totally on focussing up or down. If no characteristic pigment is found in two minutes, the case is most likely not one of malaria; in any case of doubt, of course, the other methods are available, but probably not more than one case in ten of untreated malaria would escape detection.

I do not pretend for a moment that this is a method by which beginners can study malaria, any more than that of Sir Ronald Ross; but it is very rapid and accurate, and one, moreover, which avoids nearly all the pitfalls inseparable from those more commonly used, and, indeed, from Sir Ronald Ross's method, which I have tried. At starting, of course, a student should compare his dry slides with slides carefully stained in the usual way. This gives confidence and is a valuable check to the work.

I have no hesitation in saying that once this method is given a fair trial, it will be found of real use in out-patient work in tropical countries, where stress of work makes every minute of the greatest value.

Chepstow.

J. CROPPER, M.D.

A CASE OF HYPOGLOSSAL NUCLEI PARALYSIS.

It has been disputed by some authorities, notably Oppenheim, whether the hypoglossal nucleus gives fibres to the seventh nucleus which supplies the orbicularis oris. Oppenheim takes up a sceptical attitude and thinks that such an innervation constitutes an individual abnormality. The contrary view is held by Howard Tooth and Purves Stewart. Bruggia-Mattenci described a positive case in 1887.

In view of the rarity of such a paralysis the following

* Read at the meeting of the Society of Tropical Medicine and Hygiene, March 19th.