now obvious that this was a condition analogous to acute inflammation of a Meckel's diverticulum, which had perforated soon after the commencement of her illness but which had fortunately been successfully dealt with by the omentum. The swelling was clamped at its pedicle and the diverticulum with patches of adherent omentum excised. The wall of the gut was closed in the ordinary way. It was now found that the lumen of the gut at the site where the diverticulum had been excised was constricted and it was considered essential to make a lateral anastomosis. In seeking the ileo-caecal junction the ileum was traced backwards and the origin of the diverticulum from the jejunum about nine inches below the duodeno-jejunal junction established. A lateral anastomosis was now done between the short loop of jejunum above the site of the diverticulum and a loop below. The areas of intestinal suture were covered with free edges of omentum. The pelvic organs, appendix, and other viscera were normal. The abdomen was closed in layers without drainage.

The diverticulum excised was about the size of a Tangerine orange. The long axis of the lumen of its pedicle was about one inch in length. At its fundus there was a gangrenous area, through which very fetid pus could be expressed. To the naked eye the wall of the sac seemed to be of the same structure as the wall of normal small intestine. The periodic attacks of colicky abdominal pain may quite conceivably have been due to periodic emptying of the contents of the diverticulum into the lumen of the jejunum. At the time of operation, before opening the abdomen, it was noted that the "tumour" was at a slightly higher level than at the time when I first saw the patient, due, in all probability, to shortening of the omentum in its defensive process. Except for some vomiting of coffee-ground material during the first twenty-four hours after operation, the patient made a good recovery.

My thanks are due to Dr. J. T. Bailey for his kind assistance at the operation, and to Dr. H. Grimshaw, resident medical officer, Stepping Hill Hospital, for giving the anaesthetic.

TEMPORO-SPHENOIDAL ABSCESS.

BY

JAMES ADAM, M.A., M.D.,

SURGEON FOR DISEASES OF EAR, NOSE AND THROAT, GLASGOW ROYAL INFIRMARY.

It has been suggested by those who saw and were interested in this case of left temporo-sphenoidal abscess that a note of it might be useful.

The main points of interest were: (1) a large perisinus abscess which seemed sufficient to account for the symptoms noted on admission; (2) the extent of the intracranial abscess (there were in fact two)—the bulk of the lobe must have been involved; (3) this was not opened till twelve days after admission and must have gone on enlarging under observation in hospital, yet there were none of the classical signs of brain abscess till within twenty-four hours of its being opened: pulse and temperature were up; there was no complaint of headache or vomiting after admission; no paresis, sensory aphasia, or optic neuritis.

A girl, aged 8, was admitted to Glasgow Royal Infirmary on December 10th, 1921, with a history of discharge from the left ear dating from an attack of scarlet fever eight months previously; chills and pains in the left side of the head had confined her to bed for a fortnight. Examination showed discharge from the left ear, postero-inferior perforation, great tenderness over the mastoid; the temperature was 98.8°, pulse 108. The same day the mastoid was excised and a large perisinus abscess opened; pus under considerable pressure exuded from all around the sigmoid and through the mastoid emissary foramen. The sinus was exposed for fully an inch, but seemed healthy; the tegmen was eroded. Next day the temperature was 101°, and for the following four days ranged between 99.5° and 100.5°; the pulse from 96 to 120. The child was listless and obviously ill; the wound remained dry, glazed, and unhealthy. On the seventh and eighth days after admission the temperature kept normal, pulse 96 to 116; the wound looked a little better. On the ninth day the temperature rose suddenly in the afternoon to 103.5°; in the evening it had fallen to 97.5°. I went the following morning expecting to deal with a sinus thrombosis, but the picture was quite other and plain: On the left side there was total paralysis of the third nerve; on the right, facial paresis, weakened hand-grip, becoming more distinct later in the day; ankle clonus; abdominal reflex absent, no Babinski. Eye grounds normal. Cerebration becoming quickly duller.

Operation (at noon) was, in deference to opinion expressed in consultation, limited to completion of radical mastoid operation, removal of whole tegmen (dura seemed sound to appearance and exploration by probe), and lumbar puncture (15 c.cm. clear fluid under pressure, some leucocytes, no organisms). Temperature at 4 p.m. 96.2°, pulse 92; child listless but conscious. At 10 p.m. after rephining an inch above and half an inch behind the posterior meatal wall and enlarging the opening, a knife passed inward and slightly forward to the depth of about half an inch gave vent to stinking gas and about two ounces of pus. Next day, after the cavity had been washed free of stinking pus, a probe used to explore the cavity luckily opened a second abscess on the

posterior wall and let out quite half an ounce of pus. For the useless gauze pack employed during the first twelve hours Horsley's concentric tube drain was substituted and retained twelve days, the cavity being gently irrigated once or twice daily with saline. After removal of the tubes gauze was inserted for a few days till the cavity closed.

Sensory aphasia, which doubtless was present on the day the paralysis appeared or earlier but was obscured by the mental dullness, was noted forty-eight hours after operation, but within a week had passed off, as had the other parietic signs except those due to the third nerve. The pupil reacted slightly on the tenth day after operation, but three months later remained slightly larger than its fellow.

The child, who had seemed to be dying, made a perfect recovery and from a week after the abscess was the merriest patient in the ward. Whisper was heard with the left ear at 10 feet.

Comment.

The case was probably rather one of slowly spreading encephalitis than one of strictly encapsuled abscess. In view of this and the extent of the suppuration the result is encouraging. Instead of the usual crucial incision a simple slit was made in the dura to avoid hernia, which did not occur, and in spite of the size of the cavity proved, together with irrigation, ample for drainage. The temptation was strong to make a counter opening in the tegmental region, but when there is no obvious track in the dura the result seems to show that the squamous route is preferable because it is clean, can be made efficient when an abscess is found, and comparatively safe when the abscess is missed. Lastly, the case confirms Macewen's dictum that in cases of crossed paralysis the lesion is subcortical when the contralateral paralysis affects the face more and earlier than it does the arm, and the arm more than the leg; whereas, when the lesion is close to the pons the contralateral paralysis is comparatively uniform and simultaneous.

The diagnosis of cerebral abscess is admittedly often difficult; certainly it ought not to be rushed. The following case is an interesting contrast in regard to pathology and treatment. It remained a diagnostic puzzle. Whereas in the preceding case the aphasia was sensory, in this one it was motor, and one of the main points which put abscess out of court.

J. R. was admitted to the infirmary on January 11th, 1921, with a history of discharge from the left ear for twelve years, attacks of giddiness for one month, occipital pain for a fortnight, and aphasia for a week; there had been no sickness or vomiting. Both family and personal history was good; there was no suggestion of syphilis in patient, wife, or children; Wassermann test negative. He continued at work after aphasia started till it became so pronounced that his mates sent him home. He was a bright, intelligent, well-nourished man, understanding all that was said, but having difficulty of utterance, though able after a struggle to make himself understood; he could sometimes spell what he could not articulate, and named objects shown to him. The left ear was stone deaf; meatus blocked by a polyp and pus; there was slight paresis of the face on the right, affecting more the lower muscles; the right grip was feeble than the left. Temperature, pulse, and cerebation were normal. In fundus of left eye veins more congested and disc whiter than on right.

On January 12th a radical mastoid operation was performed; the antrum was large, and without obvious pus; the tympanum was full of granulations, incus absent; the tegmen was unusually thick and quite healthy, as also was the dura. Because of this, and because the cerebral lesion was obviously as far forward as Broca's lobe, the brain was not punctured. Within the following week the cerebral symptoms steadily increased, speech becoming quite unintelligible—even "Yes" and "No" were not properly articulated; agraphia increasing, patient could at first write his name and address, but not occupation; the tongue protruded to the right; he had paresis of face, arm, and leg on the right side; biceps-jerk and knee-jerk were greater on right; the abdominal reflexes were lost on the right. He remained bright and seemingly intelligent, indicating by a nod when his own occupation was mentioned amongst others. On the fifth day from admission both optic discs were red; grey striation of retina round the discs was equal in the two eyes, but in the right there was more obscuration of vessels at the disc edge; later this became more equal (Dr. Garrow).

A month after admission the paralysis was improving, and had passed off in another month. No disturbance of pulse or temperature was noted throughout. The patient at time of writing remains normal, except for loss of hearing in the left ear.

Comment.

The case was certainly not one of lethargic encephalitis, meningitis, or syphilis. Subdural haemorrhage was suggested; I can think of no other diagnosis; but the development, spread over two or three weeks, was strangely slow for haemorrhage. Of doubtful value therapeutically, and perhaps risky because there were no pressure symptoms, a spinal puncture might have helped the diagnosis.