Short Notes and Clinical Cases.

DISPLACEMENT OF THE PINEAL GLAND IN HEAD INJURY.

REPORT OF A CASE.*

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SCHÜLLER, in his monograph of *x*-ray diagnosis of the head, suggested the diagnostic possibilities of a displaced, calcified pineal gland. He cited a case in which he ascribed the displaced pineal to a contraction of an old area of softening.¹ Since that time *x*-ray technique has improved. We are now able to see calcification in the pineals of about 50 per cent. of all adult patients, about three times that demonstrated

FIG. 1.—Fracture in left occipito-temporal region.

by the old technique. With this high percentage of availability Naffziger² has found this sign of great value in determining the site of a cerebral tumour.

Tumour, however, is not the only cause of pineal displacement.

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We have to report a case in which displacement was temporary and followed a head injury.

J. E., age fifty-two, was picked up unconscious on February 14, 1925,

FIG. 2.—Showing displacement of pineal away from site of injury.

FIG. 3.—Pineal returned to mid-line.

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FIG. 4.—Tracings from the x-ray photographs of Figs. 2 and 3.

with a laceration of the scalp in the left occipital region. The breathing was stertorous, pulse 60, skin cyanotic. The pupils were equal and reacted to light. The knee jerks and ankle jerks were equal and lively. The Babinski

sign was slightly positive on both sides, more so on the right. The patient gradually recovered consciousness, so that by the next day it was evident that he had a partial aphasia. It was also discovered that his hearing in the left ear was defective. No other abnormal neurological signs developed. The fundi remained normal. The patient was right-handed.

X-ray studies of the skull showed a fracture in the left side of the occipital bone (*Fig. 1*). The pineal was heavily calcified and lay half a centimetre to the right of the mid-sagittal plane (*Fig. 2*). A lumbar puncture was done, showing a pressure of 210 mm. of water. Thirty-five cubic centimetres of a brownish fluid were withdrawn, which under the microscope showed disintegrated blood cells. The colloidal gold test gave 5555555310. The blood and spinal fluid Wassermann tests were negative. In three days another 30 c.c. of spinal fluid were removed. This time the colour was yellowish brown, with 653 cells. The colloidal gold test gave 5544321000.

On February 17 *x*-ray examination showed the pineal one quarter of a centimetre from the mid-line. By this time the patient had nearly recovered from his aphasia, the hearing had improved, and the Babinski sign had disappeared. On March 14 a third lumbar puncture yielded a clear light yellow fluid, pressure 120 mm. of water, cell count 18. Colloidal gold, 3334421000. On March 19 the *x*-ray showed the pineal returned exactly to the mid-line (*Fig. 3*).

COMMENT.

In this case of fractured skull the calcified pineal was found displaced. It returned to the mid-line as the patient recovered from his symptoms of brain injury. We conclude that the displacement of a calcified pineal may disclose the side of brain contusion before other localizing signs appear.

REFERENCES.

- ¹ SCHÜLLER, *Roentgen Diagnostik der Erkrankungen des Kopfes*, Vienna, 1912, 107.
- ² NAFFZIGER, H., "A Method for Localization of Brain Tumours," *Surgery, Gynaecology and Obstetrics*, 1925, xl, 481.