CASE REPORTS

CHRONIC SUBDURAL HEMATOMA IN AN ADULT PRODUCING MARKED EROSION AND PERFORATION OF THE OVERLYING DURA AND SKULL

REPORT OF CASE WITH OPERATION AND RECOVERY*

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Recently we have observed in our clinic a colored man aged 32 years who was admitted to the hospital with the chief complaints of occipital headache and pain in each eye. Drowsiness had developed only in the previous 24 hours, and there had been extreme weakness of each leg (suggesting a cord tumor) the last few days before admission. The patient eventually was proved to have three chronic subdural hematomas—two separate (frontal and parietal) clots on the left side, and a single frontal subdural clot on the right side. The two frontal clots were connected beneath the falx as shown by irrigation at the time of operation. What makes this case of more than usual interest, however, is the fact that there was marked erosion and even gross perforation of both tables of the skull in the left parietal region, easily visible roentgenographically, overlying the largest of the three chronic subdural hematomas. It is this pathological rarity that has primarily prompted the present report.

CASE REPORT

M. C. V. Case #110273. P.W., a 32-year-old colored male dry-cleaner, was admitted to St. Philip Hospital on March 8, 1951. He was referred by Dr. Robert Turner of Gloucester, Virginia, who stated that the patient had become ill in a distant city 2 weeks previously. His chief complaint had been “weakness of my legs.” He also complained of occipital headache and pain in each eye. The day before admission he had become quite drowsy. There was no history of trauma.

Past history was irrelevant except for three fractures of the right femur as a boy.

Neurological Examination. The right pupil was larger than the left and reacted to light less briskly. There was questionable slight primary atrophy of the optic disks bilaterally. The tendon reflexes were brisk and equal on each side and no pathological reflexes were elicited. No other definite localizing signs were demonstrated that might suggest a surgically significant cerebral or cerebellar lesion. A diagnosis of a spinal cord lesion (? tumor) producing weakness of the legs was also considered.

Laboratory Studies. Spinal puncture on the day of admission disclosed an initial pressure of 300 mm. water (? complete relaxation of the patient). Five days later another spinal puncture was performed and an initial pressure of 240 mm. water was demonstrated. The fluid was grossly quite clear; 4 cc. were removed, the final pressure being 170 mm. water. A Queckenstedt test (to rule out a surgically significant cord lesion as the cause of the bilateral leg weakness) showed a rapid rise and slower fall of fluid in the manometer, the patient not being

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entirely relaxed or cooperative. The CSF contained 40 mg. per cent total protein, and 2 lymphocytes per HPF; Wassermann reaction was negative. The blood flocculation test for syphilis was negative. The fasting blood sugar was 104 mg. per cent and the NPN 33 mg. per cent. Urinalysis was negative. RBC 4,86 million per HPF; Hb. 13.5 gm. per cent; WBC 5,200 per HPF, with 67 polymorphonuclears, 28 lymphocytes, 3 mononuclears and 2 eosinophiles. An EKG on March 9 showed sinus tachycardia.

Roentgenograms of the skull showed a large (4×6 cm.) area of bone destruction and (over a smaller area) complete erosion of both inner and outer tables in the left parietal region (Figs. 1 and 2). This rarefied and perforated portion of bone was not associated with or surrounded by any area of bony thickening, trabeculation or vascularization to suggest that it might be an osteolytic bone tumor, an angioma of bone or other primary osseous tumor or disease of the skull or underlying structures. One gained the impression, rather, that it was an erosion of otherwise normal bone by an underlying soft-tissue expanding lesion, the nature of which (chronic subdural hematoma) was entirely unsuspected by any member of the neurosurgical staff before operation, there being no history of specific trauma in this case. One could not, however, from the X-ray appearance of the skull alone, entirely exclude the diagnosis of a primary bony tumor.

Left carotid arteriography done on March 12, 1951 gave normal findings; no undue vascularity of the cerebral, skull or scalp tissues on the left side was disclosed.

1st Operation (G.R.G.). On March 15, 1951, bilateral frontal burr openings were made for ventriculography; these revealed a moderate-sized bilateral frontal subdural hematoma of the chronic variety; ventriculography was therefore abandoned. Irrigation of one subdural space was followed by the appearance of the fluid in the opposite subdural space very promptly, as though it went under the falx. The cerebral (frontal) cortex was 2.0 cm. or more beneath the dura bilaterally after the clots had been evacuated.

Separate analysis of the two fluids was carried out in the laboratory. That from the right frontal subdural space contained 1.8 gm. Hb., 280,000 RBC per HPF and 700 WBC, 60 per cent of which were lymphocytes and 40 per cent polymorphonuclears. The fluid from the left subdural space yielded similar results, i.e., 2.0 gm. Hb., 295,000 RBC per HPF and 800 WBC, with 54 per cent lymphocytes and 46 per cent polymorphonuclears.

Microscopic Examination. A small portion of the subdural membrane from each side was examined. It was composed of fibrous and collagenous tissue with infiltration of lymphocytes,