A CASE OF EPIDERMOID (CHOLESTEATOMA) OF THE BRAIN AND CAUDA EQUINA

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In his Anatomie Pathologique du Corps Humain in 1829 Cruveilhier\textsuperscript{6} described a tumor of the brain to which because of its pearly, glistening appearance he gave the name of “tumeur perlée”. In 1838 J. Müller\textsuperscript{11} described two more tumors of the same type which he called cholesteatoma, because of the presence of cholesterin crystals. Virchow\textsuperscript{14} preferred the name given by Cruveilhier and called them “Perlgeschwülste”. Objections have been voiced against both these terms by many authors. Horrax\textsuperscript{8} called them meningeal cholesteatomas and specified them by a division into the hair-containing and non-hair-containing cholesteatomas. Cushing\textsuperscript{7} referred to them as epidermal and dermal cholesteatomas, Critchley\textsuperscript{4} gave his reasons for calling them epidermoids, Bostroem\textsuperscript{4} divided them into pial epidermoids and pial dermoids, etc. It has been stated by many authors that even with these qualifying terms the name cholesteatoma is unfortunate and that these tumors should be called epidermoids of the brain, if they contain ectodermal structures only, or dermoids, if they are formed of both epidermal and mesodermal derivatives; and that these terms should be used for either intradiploic or intracranial tumors in contradistinction to the so-called cholesteatomas associated with otitis media desquamativa.

These epidermoids are slow-growing tumors, are considered benign and non-invasive, are seldom suspected clinically, and are usually found accidentally either at operation or at autopsy. They are rare tumors, comprising less than 1 per cent of all the intracranial growths. To date, less than 300 cases have been reported in the literature. Therefore, a case of an epidermoid tumor causing clinical symptoms for 17 years and invading the brain tissue seems worthy of presentation.

CASE REPORT

B.S.H. No. 42927. F. C., a 51-year-old white male, was admitted to the Boston State Hospital in May, 1944, with the diagnosis of Psychosis with Convulsive Disorders (Epilepsy), Idiopathic. He began to suffer from epileptic seizures at the age of 34. His spells were of a grand mal type. As his attacks became more frequent, he became confused, talkative, de-nuditive, suspicious and belligerent.

In 1943 he had been treated for fracture of the frontal bone, lacerated wound of the forehead, contusion of the brain and meningitis, following a fall from an 18-foot wall. He had had ventriculostomy; ventricular and spinal fluid showed normal protein.

He was a well-nourished man. Pupils were regular and equal, and reacted to light and in accommodation. Hearing was poor in the right ear; the right drum was perforated. Reflexes were less active on the right than on the left; the left knee-jerk was hyperactive. Vibratory sensation was present, and there were no tremors. Eyegrounds were negative. Hinton reaction, spinal fluid, blood and urine were negative.

He complained of headaches, had a mild aphasia, continued to have severe epileptic seizures, and died in July, 1946.

Autopsy. The head showed no abnormal configuration. There was a linear healed fracture of the frontal bone, and in the occipital bones there were 2 symmetrical burr-holes, 1.5 cm. in diameter, in the region of which the dura mater was adherent. The pia-arachnoid was thin
and transparent. The brain weighed 1390 gm. The convolutional pattern of both hemispheres showed no abnormalities.

In the right lateral recess, covered with thin transparent pia-arachnoid, there was a tumor of a peculiar shining appearance extending forward along the ventrolateral surface of the pons, covering and enveloping the 9th, 8th, 7th and 5th cranial nerves, to the bifurcation of the basilar artery. It extended backwards along the lateral surface of the right cerebral peduncle to the upper surface of the right upper cerebellar lobe and burrowed itself between the middle cerebellar peduncle and the cerebellum. The tumor was firm but not hard, had a peculiar resiliency, and was very brittle. It had a yellowish, brilliant, and smoothly nodular surface. It appeared to be formed of granules of waxy matter covered with a delicate membranous capsule, which could be easily split into very thin flaky layers.

The 5th nerve was stretched over the tumor and at first glance appeared to emerge from its surface, rather than from the surface of the pons (Fig. 1). Externally to the right optic tract and bridging over it was a thickened basal pia which appeared grayish-yellow, granulated, and opaque. The interpeduncular leptomeninges were thickened at the right. The cerebral vessels were supple and there was no evidence of arteriosclerosis. There were several plaques jaunes on the orbital surfaces of the frontal lobes, near the frontal poles, and in the middle of the left third temporal convolution. Frontovertical sections through the temporal lobes revealed that the tumor had nestled deep into the hippocampus, for a distance of 0.6-0.9 cm., compressed and destroyed a large part of Ammon's horn, and covered and compressed the lateral surface of the right cerebral peduncle. It had reached the wall of the temporal horn of the right lateral ventricle, but stopped close to it without breaking through the ependyma, which appeared intact. The right choroid plexus looked paler than the left. The ventricular system was free. Sections through the pons and cerebellum showed that the tumor gradually tapered backwards as it wedged between the middle cerebellar peduncle and the right cerebellar hemisphere (Fig. 2).