

A CASE OF CHOLESTEATOMA OF THE BRAIN.*

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Cholesteatoma is certain to be classed among the rarer neoplasms of the brain, hence the following case, which is remarkable also for the size and position of the tumor, has been thought worth recording, although it was first encountered by the writer upon the post-mortem table, and clinical history is lacking.

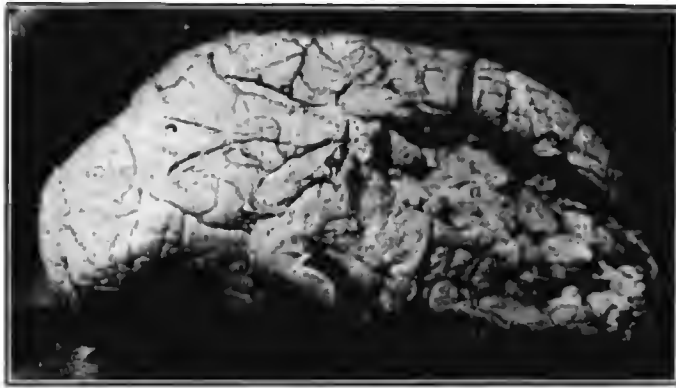
J. J., a friendless man, said to be thirty-three years old, was brought to the hospital on May 30, 1901, with a statement that a short time before he had been struck in the head and had since been apparently insane. He did not speak, appeared to be entirely demented, and had from time to time epileptiform convulsions until his death in status epilepticus on June 27. No record of any focal symptoms is obtainable.

Upon post-mortem examination the skull was found to be quite thin, but showed nowhere any trace of injury. The dura was not adherent. The brain appeared to bulge somewhat in the left frontal region. Upon removing the dura, in an area about one centimeter in diameter in the second left frontal convolution, a mass grayish white in color and somewhat lustrous, was noticed to be protruding immediately beneath the pia-arachnoid. Upon the inner surface of the left hemisphere, a mass in appearance much like cooked cauliflower, and having somewhat of a luster protruded, had pushed the corpus callosum downward, and had indented the convolutions of the opposite hemisphere. This protruding portion was about 4 cm. in diameter.

Upon further examination the tumor was found to be an extremely friable mass, which fell apart with great readiness.

*Specimen shown at a meeting of the Philadelphia Neurological Society, November 26, 1901.

It occupied the greater part of the frontal lobe, measuring, sagittally 8.5 cm., frontally 5.5 cm. and horizontally 3.7 cm., and was provided with a capsule. It arose from the body of the lateral ventricle and had extended into the frontal lobe. The portion next to the inner wall of the ventricle was firmer, laminated in structure, glistening white in color, and had a pearly luster. Portions of the mass crushed under a cover glass in salt solution, and examined microscopically, showed it to be made up of large flat polygonal and oval cells, most of



Photograph of the inner aspect of the left cerebral hemisphere, a portion of its surface being turned back to show the extent of the tumor (*a*).

them without a nucleus, cholesterol crystals, and fat globules with a fibrous stroma. It was impossible to obtain sections from the central portion of the mass, as the alcohol used in both paraffin and cellodine imbedding processes dissolved out the cells and cholesterol. A freezing apparatus was not at my disposal. From the internal portion of the tumor near its origin and including the capsule, some rather imperfect sections were secured. These stained by hematoxylin and eosin, by borax carmine and by Van Gieson's method, show what appear to be cornified epithelial cells, which tinge faintly at their edges, and have no nucleus, with a fibrous stroma. The capsule is composed of fibrous tissue, shows round cell infiltration, and in places some blood vessels filled with erythrocytes.

Sections through the brain axis and cord show nothing characteristic. There were congestion and slight broncho-pneumonia at the bases of the lungs, some increase of connective tissue in the liver, and slight interstitial nephritis.

The tumor is to all appearances a cholesteatoma. This diagnosis suggests itself on account of the color, the pearly luster, the consistence of the growth, its situation and its histological character as shown by examination of both fresh and stained specimens. That it had any more than an accidental connection with the blow on the head seems unlikely.

Cholesteatoma, first observed by Cruveilhier, and given its name by Johannes Muller, has formed the subject of a number of papers. Notable among these are those of Virchow, Beneke, Böstrom, and a quite recent one by J. J. Thomas. The balance of opinion seems to be in favor of the epithelial origin of these tumors, and the case here reported bears out this idea, as in it the tumor has apparently grown from the ependyma of the lateral ventricle.

The accompanying cut (from a photograph) represents the inner aspect of the left hemisphere, a portion of its surface being turned back to show the extent of the tumor mass.