34. Studies in the Subdural Hygroma

—Report of seven cases—

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We have experienced seven cases of subdural hygromas during the incidence of 39 cases of subdural hematomas. In this series all the cases occurred exclusively in males, age ranging from eight months to sixty-two years and were all found of traumatic origin. The series also comprised two rare cases of subdural hygromas combined with subdural hematomas. In comparison with subdural hematomas the peculiarities of clinical manifestations in the subdural hygromas were:—

- (1) In chronic cases signs and symptoms had been continuous since earlier period.
- (2) Angiographically thin crescent avascular area.
- (3) Repeated subdural accumulation is frequent.

The capsules show no marked distinction from those of subdural hematomas. No definite etiology has been constituted on this entity. In severe cases with cerebral contusions the lesions could possibly be consistent with, for example, Dandy's hypothesis of "tear in arachnoid membrane"; because with such strong impactions the arachnoid can be easily ruptured. In cases with history of only lighter injuries or in cases combined with subdural hematomas, the etiology can by no means understood so conclusive. In one of our cases protein concentration of fluid in the hygroma which was discovered lying beneath the subdural hematoma is as high as 2,450 mg/dl and albumin, as 76.5%—more condensed than in serum.

It is, therefore, very probable that albumin may have invaded through the inner membrane of the hematoma not through the torn lesion after Dandy's hypothesis but simply because of its small molecularity.

This disease, presumably consists of several nosologic entities and could be classified in acute, subacute and chronic cases when they have episode of trauma and its pathogenesis varies respectively.