LARGE CALCIFIED CRANIOPHARYNGIOMA AND BILATERAL SUBDURAL HEMATOMATA PRESENT AT BIRTH
SURVEY OF NEONATAL BRAIN TUMORS

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This report is made to record the occurrence in a newborn not only of a large calcified intracranial mass (craniopharyngioma) but its concomitant association with bilateral subdural hematomata developing in utero. A survey of the literature has failed to reveal another patient in whom a craniopharyngioma was present at birth. The earliest case found was one mentioned in a report by Jackson.9 In his paper of 1916 he referred to a case reported by Lawson in 1887. The patient was a 3-month-old male infant. Two references to craniopharyngioma occurring in children of the age of 2 years have also been found.5,6 The rarity of a large calcified tumor at birth and the presence of bilateral subdural hematomata are self-evident. A survey of other brain tumors occurring in the newborn will be made.

CASE REPORT

A neurosurgical consultation was requested at St. Joseph Mercy Hospital in Detroit, Michigan by the pediatrician in attendance who recognized an enlarged head and bulging widely patent fontanelles in a newborn full-term male delivered on April 24, 1955. He showed no other physical defects. The pregnancy had been normal, and the child had two normal siblings. The delivery was uncomplicated, but low forceps was employed. Immediately following birth the condition of the child was considered poor, and artificial respiration was instituted subsequent to which he was placed in an incubator. The birth weight was 7 pounds and 15 ounces.

Examination. When first seen by the writer the child was 2 days of age and showed no neurological deficit except for the enlarged head (circumference 43 cm.). He cried somewhat feebly, but was otherwise active and alert. There was marked palpable separation of suture lines and bulging of intracranial contents between all ununited bone plates.

Course. The initial clinical impression was of marked hydrocephalus developing in utero. However, bilateral fontanelle taps at the age of 7 days revealed that the condition apparently was caused by bilateral subdural hematomata. Sixty-three cc. of yellow fluid were easily aspirated from the right subdural space, and 58 cc. of yellowish somewhat sanguineous fluid were similarly removed from the left subdural space, resulting in marked scaphoid depression of the anterior fontanelle. The size and color of these hematomata at such a short time following birth, plus the existence of an enlarged head at birth seemed to indicate that these clots had existed in utero and had not occurred as a result of parturition. Attempts to discover a blood dyscrasia as an explanation of the development of hematomata in utero were unrewarding and became unnecessary when roentgenograms of the skull revealed the large calcified intracranial mass shown in Fig. 1. The presence of this mass and its movement with in utero movements of the fetus could well explain a tear of bridging subdural veins and consequent development of subdural hematomata.

During the next 4 weeks bilateral fontanelle taps with drainage by needle of the hema-

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tomata were done on six different occasions. After the fourth tapping the left hematoma was dry and remained so. However, the right-sided one continued to accumulate. Beginning at the fourth week of life further tapping of the right subdural hematoma failed to reduce the bulging anterior fontanelle to a scaphoid state, as had occurred previously, and the growth of the head increased more rapidly (from 43 to 46 cm. in the 2-week period) suggesting abrupt development of obstructive hydrocephalus. The mass itself was needled through the fontanelle on two occasions. The first time this was done was at 11 days of age, but only 1–2 cc. of bloody fluid could be obtained and no significant tissue was removed. At 2½ weeks of age the mass was again needled and 5 cc. of straw-colored oily fluid were obtained. The infant was discharged home on May 26, 1955.

2nd Admission. The baby was admitted to Mt. Carmel Mercy Hospital in Detroit, Michigan on June 1, 1955. He now weighed 9 pounds, but the head had grown to 49 cm. in circumference. Otherwise the baby seemed more vigorous and alert than it had previously.

The left fontanelle tap on June 1, 1955 was dry, but 45 cc. of straw-colored fluid were removed from the right subdural space without depressing the fontanelle.

On June 3, 1955, 43 cc. were removed from the right subdural space through the anterior fontanelle, and at the same time 8 cc. of black-colored fluid was aspirated from within the calcified mass and replaced with an equivalent amount of air. Roentgenograms at this time showed the air confined within the calcified mass in a scattered fashion without outlining any single loculated cyst.

On June 7, 1955 a right subdural tap allowed removal of 20 cc. of straw-colored fluid. At the same time the right ventricle was tapped, and 5 cc. of clear colorless fluid were removed and replaced with air. Roentgenograms showed a dilated right ventricle displaced far to the right and not communicating with the left lateral or third ventricles (Fig. 2). It was of inter-