Failure of development of the foramina of Luschka and Magendie is an interesting and important congenital anomaly of the central nervous system. Very few instances of this anomaly have been reported in the medical literature and only 3 instances of surgical cure of the condition are recorded. In an excellent paper Taggart and Walker have reviewed the literature and detailed the development of these foramina and the vermis of the cerebellum. On the basis of these studies, they have presented a roentgenographic picture that is pathognomonic of the condition. The purpose of the present paper is to report 2 additional cases of surgical cure. Neither of them showed the typical roentgenographic findings.

CASE REPORTS

Case 1. A 14-month-old white female was admitted to the Medical College of Virginia Hospital on Feb. 17, 1946 because of enlarged head and attacks of vomiting. Family history revealed that a 4-year-old brother was a Mongolian idiot. The only other sibling, a girl, 7½ years of age, was normal in every way. Mother and father were perfectly normal and no
history of other congenital defects in the family could be elicited. Birth history showed that labor was prolonged, lasting 14 hours. Patient was born at full term and no abnormalities were noted. At 1 month of age it was noted that the head was rapidly enlarging and attacks of vomiting began. The patient was admitted to a hospital and remained there for a month. Attacks of vomiting soon became very infrequent but the head continued to enlarge. At 2 months of age the patient was discharged and the parents were told that she would probably not survive another month. Feedings at home were well taken and head increased almost imperceptibly in size. Parents noted that the eyes “seemed to wander.” Three days before admission to the Medical College

of Virginia Hospital the patient fell from a bed and the following day began to have projectile vomiting.

*Examination* at time of admission revealed the head to be enlarged, the circumference measuring 58 cm. Anterior fontanelle measured 4 × 3 cm. Examination of the optic fundi revealed slight atrophy. Eyes showed gross spontaneous nystagmoid movements and frequent independent aberrant movements of each eye. Each lateral ventricle was tapped through the fontanelle and fluid was encountered at a depth of 3 cm. Roentgenograms showed marked increase in the size of the calvarium, and convolutional atrophy that was most marked in the parietal and occipital regions (Fig. 1). The inion was in approximately normal position considering the size of the head.

*Operation.* Patient’s condition markedly improved after the ventricular punctures and ventriculography was carried out on Feb. 22, 1946. The entire ventricular system was found to be enlarged (Fig. 2). Suboccipital craniectomy was then performed under basal anesthesia of avertin, supplemented by endotracheal ether. After the bone had been removed, the dura was opened in stellate fashion. It was then noted that the greater portion of the posterior fossa was occupied by what appeared to be a huge cyst covered by a translucent membrane which was abundantly supplied with small blood vessels. Attachments of the membrane were traced along the calamus scriptorius and into the lateral recesses. No openings could be found at the obex or in the lateral recesses. The membrane extended over the cerebellar hemispheres

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**FIG. 2. Ventriculogram showing marked generalized ventricular dilatation.**

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