Cerebral Teratoma Associated with Epignathus in a Newborn Infant*

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The association of an intracranial teratoma with an epignathus is uncommon in the newborn infant and only 2 cases have been reported previously. This is the report of an additional case.

A teratoma is both a tumour and a congenital malformation, composed of adult and embryonic tissues of different types, which may or may not be foreign to the parts where it is found. An epignathus is a teratoma attached to the roof of the mouth or pharynx.

In a review of the literature on the subject of intracranial teratoma of the newborn, Greenhouse and Neubuerger found 25 cases reported. They divided these into three groups (Table 1): 1) The largest consisted of stillbirths and all except in the case reported by Kraus were hydrocephalics. 2) Hydrocephalics who died shortly after birth. 3) Infants apparently normal at birth who, within weeks, presented a gradual enlargement of the head. The sex ratio was 12 females to 6 males; the sex was not recorded in the other 7 cases.

This report is concerned with a case of epignathus associated with a cerebral teratoma. The latter revealed itself as a calcified intracerebral zone on radiological examination of the foetal head.

Case Report

Clinical History. The mother, aged 26, was known to have a patent ductus arteriosus. She had one healthy boy, aged 3 years. During this pregnancy she suffered from subacute hydramnios which appeared during the 7th week, and the onset of labour was spontaneous at 31 weeks. There was a precipitate delivery following a second stage lasting only 5 min. The infant never really established respiration and died 55 min. after delivery.

Postmortem Findings. The body was that of a small, premature male infant, weighing 1842 g., with a crown-heel length of 39 cm. An epignathus protruded through the mouth (Fig. 1). On dissection it was found to fill the mouth and nasopharynx and was attached to a very narrow area, about 4 cm. long, in the nasopharynx, just below the posterior nares. Two polypoid prolongations of the tumour passed upwards through the nares into the nose. This tumour, weighing 50 g., was lobulated, and some of its tissue was soft and haemorrhagic; elsewhere it was very firm and appeared to be bony or cartilaginous. The circumference of the enlarged skull was 32 cm., and the bones were thin. The anterior fontanelle was wide. On opening the skull a large amount of slightly bloodstained cerebrospinal fluid escaped. On removal of the brain, which weighed 290 g., there was a large saccular dilatation of the leptomeninges over the right frontal pole. On radiological examination of the brain an area of calcification was seen in the right frontal pole which corresponded to a mass of tumour found on slicing the brain. The tumour, 30 mm. by 40 mm., was sessile and lay loosely in the lateral ventricle. On cutting, it was gritty and contained cartilage. No abnormality was found in the cardiovascular, renal, alimentary, endocrinologic or genitourinary systems.

Histology. Representative blocks of the brain, cerebellum, brain stem and somatic organs were processed in paraffin and celloidin, and stained with hematein-eosin and haematoxylin-van Gieson, for general purposes.

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TABLE 1

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<th>Group</th>
<th>No. Cases</th>
<th>Sex</th>
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</tr>
<tr>
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</tr>
<tr>
<td>2</td>
<td>5</td>
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<tr>
<td>3</td>
<td>8</td>
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* Reported by Greenhouse and Neubuerger.

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FIG. 1. The epignathus projecting out of the infant's mouth.
Cerebral Teratoma with Epignathus in Infant

Fig. 2. Rosette formed by ependymal cells. Haematoxylin and eosin.

Fig. 3. Intestinal mucosa in teratoma of brain. Haematoxylin and eosin.