



Figure 2-16. Immature cerebellar teratoma with pigmented, optic cup-like structures. Heavily pigmented (possibly retinal) epithelium is present along the right margin of the vesicle (hematoxylin-eosin, $\times 150$).

lar histologically has been known to occur also in the conjunctiva.

Gastric Teratoma

Gastric teratoma is an exceedingly rare form of teratoma.^{36,37,40,52,70,92,154} It may present as an abdominal mass in the neonatal period and may be accompanied by vomiting and/or gastrointestinal bleeding (hematemesis or melena), which is noted most often with endophytic lesions (see Fig. 2-7). Respiratory distress occurs when there is displacement of the diaphragm by the tumor.⁵² Peritoneal gliomatosis resulting from a congenital gastric teratoma has been reported, and was an incidental finding in hernia sacs removed 10 months after gastrectomy.³⁶ Histologic examination reveals that gastric teratomas, similar to other tumors found outside the sacrococcygeal area, are composed of mature tissues and, often, immature neuroglial elements. Simple excision of

the teratoma, followed by reconstructive gastric surgery, is the treatment of choice.^{52,70} The prognosis for this teratoma is generally favorable.^{52,92,154}

Mediastinal Teratoma

Mediastinal teratomas are uncommon in infants and children, constituting only 7% to 10% of all teratomas in this age group.^{40,105} Less than 50% of childhood mediastinal teratomas occur in neonates, in whom they are located anteriorly or on either side of the chest, within the pericardium or heart.^{27,46,61,92,104,105,130,133,139,169,182} Fourteen cases of teratomas of the heart and pericardium were included in a series by Williams prior to 1962, five of which involved infants younger than 4 months of age.¹⁸² A study by the Boston Children's Medical Center revealed that 4 of 11 children with mediastinal teratomas were 3 months of age or younger.¹⁶⁹ Two newborns had pericardial teratomas with presenting symptoms that mimicked congenital heart disease or idiopathic cardiomegaly. In a study of 15 infants and children with mediastinal teratomas (6 personal cases plus 9 from the literature), Lakhoo et al., of the Hospital for Sick Children, London, found 7 who were younger than 3 months of age.¹⁰⁵ In this study, four tumors were located in the anterior mediastinum, two involved the right chest, and one involved the right cardiac ventricle. A 2-day-old male infant with an encapsulated teratoma attached to the trachea, great vessels, and pericardium was treated successfully with surgical resection performed by Mogilner et al.¹¹⁷ Magee et al. described a stillborn infant of 26 weeks' gestation with a large mediastinal teratoma and fetal hydrops.¹¹³

Frequently, patients with mediastinal teratoma have a mass identified on imaging studies, but a definitive diagnosis of teratoma can only be established after microscopic examination of the excised tumor.¹⁰⁵ One such case was diagnosed by prenatal sonography.¹⁷⁹ A multiloculated cystic teratoma located in the anterosuperior mediastinum extended into the neck and was accompanied by polyhydramnios, placental and fetal hydrops, and a fatal outcome. In addition, the neonate had hypoplastic lungs, pleural effusions, and ascites.¹⁷⁹ Froberg et al. documented a similar example of a mature mediastinal teratoma detected by sonography at 25 weeks' gestation.⁶¹ The tumor caused hydrops fetalis and in utero death at 27 weeks' gestation.

Figure 2 shortly after birth. A gross photograph of the polypoid mass ($\times 63$).

Fetal teratoma. Fetal teratoma is a rare tumor of the fetus. It is a mass of undifferentiated tissue that can fill the entire fetal cavity. It is a teratoma because it contains tissues from all three germ layers. It is fetal because it is found in the fetus. It is a teratoma because it is a mass of undifferentiated tissue that can fill the entire fetal cavity. It is fetal because it is found in the fetus. It is a teratoma because it contains tissues from all three germ layers.

Dehno et al. reported a case of fetal teratoma for mediastinal teratoma. Lakhoo et al. reported a case of fetal teratoma from the mediastinum in both male and female newborns and if resected, the prognosis is good. Froberg et al. reported a case of fetal teratoma, only 27 weeks' gestation. In this study, the tumor was found at the time of the fetal autopsy.

Table 2-4. Average Normal Serum α -Fetoprotein Levels in the Perinatal Period

Age	Mean \pm SD (ng/mL)
Premature	134,734 \pm 41,444
Newborn	48,406 \pm 37,718
Newborn to 2 weeks	33,113 \pm 32,503
Newborn to 1 month	9,452 \pm 12,610
2 weeks to 1 month	2,654 \pm 3,080
2 months	323 \pm 278
3 months	88 \pm 87
4 months	74 \pm 56

From Wu JT, Book L, Sudar K. Serum alpha-fetoprotein levels in normal infants. *Pediatr Res* 1981;15:50. Used by permission.