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Congenital nasopharyngeal teratoma: A case report and literature review

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Summary

Nasopharyngeal teratomas are very unusual and uncommon types of teratomas. We report a case of congenital nasapharyngeal teratoma in a newborn causing respiratory distres, dysphagia and cleft palate reviewing the literature.

Key Words: Nasopharyngeal teratoma, congenital teratoma

Case report

B.K., 10 days old female baby admitted to our department on May 1987 with dyspnea and dysphagia, occuring within last two days. She was born at home by normal spontaneous vaginal delivery. Polyhydramnios was the only abnormal finding in the maternal history. Physical examination revealed a cleft palate and a 2x3x3 cm mass at the right side of soft and hard palate segments. Her respiratory sounds were clear, but she had laboured respiration due to airway obstruction by the tumor. After oropharyngeal airway and nasogastric tubes were placed, she did well. Other system examinations and routine laborotory tests were normal. Computerized axial tomograhy (CAT) sections of craniofacial region showed a pharyngeal soft tissue mass, which filled the nasopharynx and depressed the right maxillary sinus. There was no cranial or cervical extension (Fig 1.). Serum alpha-feto protein was 125 ng/ml. Nasopharyngeal tumor was excised under general anesthesia (Fig 2.). Histopathological examination of the tumor revealed ectoderm, mesoderm and endoderm mature tissue components, such as mature brainlike tissue, papillary structures layered with cuboid epithelium, mucin glands, fat and muscle tissue and a patch of retinal tissue. No cellular atypia or significant mitotic activity was noted and the tumor was diagnosed as a benign teratoma. The baby was discharged on the 19th postoperative day, after the oral feedings were established. There was no tumor tissue on postoperative CAT scan (Fig 3). She is alive and well three years after the operation.

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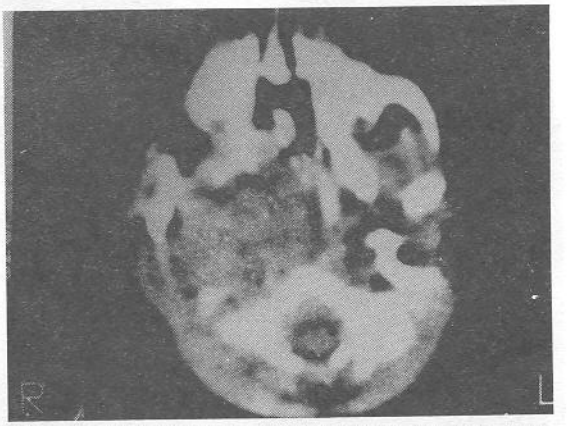

Fig. 1. Preoperative CAT section of the craniofacial region showed the localization of the nasopharyngeal tumor.

Discussion

Teratomas may occur in many different lacalizations, predominantly in sacrococcygeal and gonadal sites [2,3,9]. Oral teratomas which protrude outside are referred as "epignathus" [7,8,9]. Nasopharyngeal localization is unusual and rare. There is only two in 91 teratoma cases of Berry et al (1969) [2], one in 142 teratoma cases of Billmire and Grosfeld (1986) [3], two in 162 teratoma cases of Children's Hospital of Los Angeles (1982) [9].

Nasapharyngeal teratomas are most often diagnosed in infants less then one year old, usually in neonates [1-9]. The most common presenting symptoms are urgent dyspnea and dysphagia due to obstruction [1,3,9], as in our case. Congenital nasopharyngeal teratoma may decrease fetal swal-

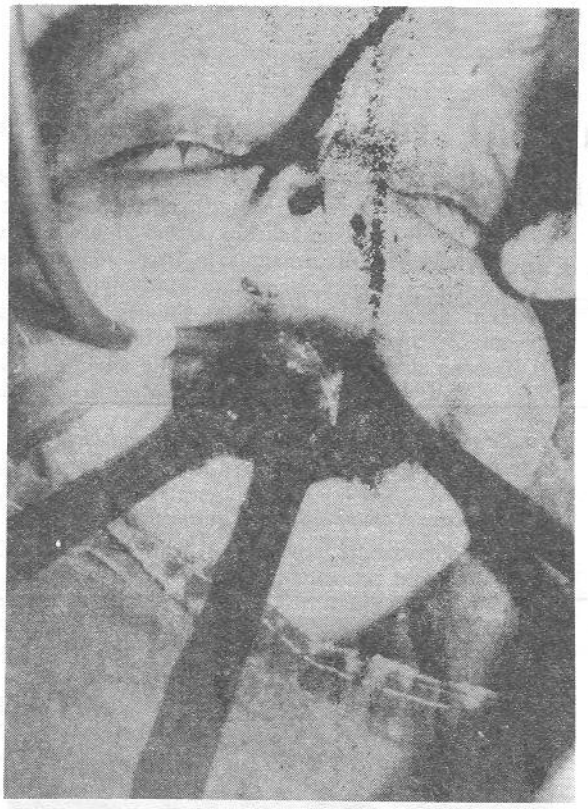

Fig. 2. Intraoperative view of the patient. A 2x3x3 cm sized nasopharyngeal tumor could easily be seen behind the cleft palate.

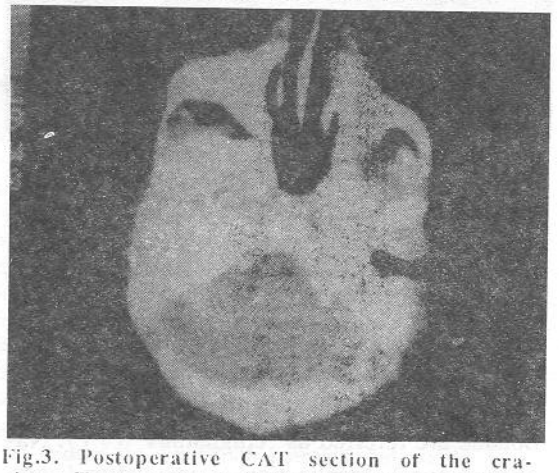

Fig.3. Postoperative CAT section of the cranium. There was no residual tumor nor extension.

lowing of amniotic fluid and may cause polyhydramnios, which is a common finding in maternal history [1,3,5,6]. Premature and stillborn babies were also reported. The simultaneous development of teratoma and palate is thought to interfere with proper migration of lateral palatal halves by the 7th and 9th week of fetal life, therefore producing cleft palate [8].

Histological examination of nasopharyngeal teratomas reveal a variety of mature tissues from three germ layers. Nerve tissue is present in approximately 70 % of cases [2,5,8,9]. They are known as benign lesions. Current review of the literature revealed only three malignancies among 135 cases of cervicopharyngeal teratomas of newborn [8]. Craniography, ultrasonography, CAT and needle or serum alpha-fetoprotein and beta-Human Chorionic Gonadotropin levels are useful to detect malignancy [1,3,8].

Obstructive cases of nasopharyngeal teratomas may require establishment of airway and/or emergency excision [1,3,5,7,8,9]. Tumor should be excised completely to prevent recurrence. Good prognosis is achived after total excision of teratomas, particularly during the neonatal period [1-9].

Kaynaklar

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