CASE REPORT

Nasopharyngeal Teratoma as a Cause of Neonatal Stridor

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We report nasopharyngeal teratoma in a term female neonate, that presented within first week of life with episodic stridor, apnea and cyanosis. Laryngoscopy revealed a mass which was confirmed by MRI. The mass was surgically excised and diagnosed as nasopharyngeal teratoma on histopathology. The child is doing well on follow-up.

Keywords*: Nasopharyngeal teratoma, Newborn, Stridor.*

Teratomas are congenital neoplasia with an incidence of 1 in 40,000 live births. Teratomas in the region of the head and neck are relatively rare and account for less than 5% of the total(1). We report a rare case of a congenital nasopharyngeal teratoma in a full term neonate which presented as repeated episodes of apnea and cyanosis. Diagnosis was delayed because the pedunculated tumour would be lifted out of the field of vision when the throat was examined by direct laryngoscopy.

CASE REPORT

A term female neonate was transferred to neonatal intensive care unit (NICU) at one hour of age for an episode of cyanosis and stridor. This settled soon afterwards. On physical examination, the facies was normal and there were no craniofacial, maxillary or mandibular abnormalities and no macroglossia. Initial sepsis screen, serum glucose, calcium and electrolytes were normal. Chest *X*-ray showed clear lung fields and normal heart size.

In the NICU, the baby developed inspiratory stridor with signs of respiratory distress and intermittent episodes of apnea and cyanosis, for which she was electively ventilated. No anatomical abnormality was detected on direct laryngoscopy. She was well on the ventilator with minimal ventilatory settings. She was extubated after 12 hours. On extubation the problem of intermittent stridor recurred. Direct laryngoscopy was repeated and this time while withdrawing the blade of laryngoscope, a tongue like mass of about 2×1 cm was visualized hanging down from nasopharynx. Magnetic Resonance Imaging (MRI) (***Fig.* 1**) confirmed a mass compromising the adjoining airway. Surgical excision was done and histopathological examination was consistent with mature teratoma. She had no further episode of stridor, apnea, cyanosis or respiratory distress and was discharged home on day 6 of life. Child is under regular follow-up for more than one year without any complication.

DISCUSSION

Generally obstructive apnea in neonates is associated with obvious craniofacial abnormalities including maxillary or mandibular hypoplasia, macroglossia, or less visible abnormalities such as laryngeal webs, laryngomalacia, nasal polyp, nodule or other soft tissue masses. Teratomas commonly

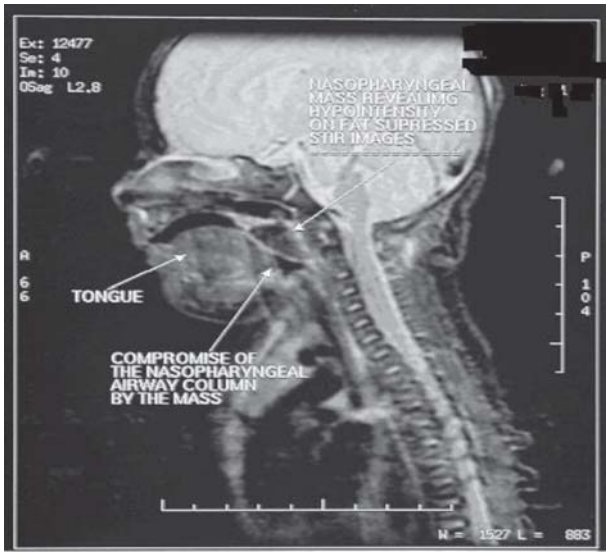

FIG. 1 *Magnetic Resonance Scan showing a nasopharyngeal mass compromising the adjoining airway.*

arise from gonadal tissue and the most frequent extra gonadal site of origin is sacrococcygeal region(2). Teratomas in the region of the head and neck are rare(1). There are few case reports in the literature describing nasopharyngeal teratoma as a cause of stridor in neonates(3,4). Recently it has also been described in association with other congenital malformations(5,6). In the case reported here, the teratoma produced intermittent life threatening obstructive apnoea. It was difficult to diagnose because the pedunculated tumor would be pushed up outside the field of vision during direct laryngoscopy when the soft palate became tense. It came into view hanging from nasopharynx while the blade was being withdrawn and the palate became softer.

Generally these tumors are associated with stillbirth, perinatal death or significant morbidity after attempted resection. Byard, *et al*.(7) reported their experience of early outcome of 18 cases (14 cervical, 4 nasopharyngeal) to demonstrate the high morbidity and mortality that these benign but critically placed lesions have because of their mass effect. They usually present at or soon after birth with signs of upper airway obstruction like stridor or recurrent apnea. Sometimes they can be diagnosed antenatally with the help of ultrasonography associated with polyhydramnios. It is also associated with increased maternal α-fetoprotein levels. Rarely, they may extend into the intra cranial cavity during development. Metastasis is rare(8).

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