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Soft palatine mass with diagnosis of mature teratoma

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ABSTRACT

Teratoma is a true neoplasm that consists of tissues from all 3 embryonic germ layers: ectoderm, mesoderm, and endoderm. Nasopharyngeal teratoma is very rare. We present one case of nasopharyngeal teratoma attached to the soft palatal wall in a newborn.

1. Introduction

Teratoma is a special type of mixed tumor that contains recognizable mature or immature cells or tissues representative of more than one germ cell layer and sometimes all three [1]. Grossly, they are heterogeneous masses composing of both solid and cystic components. Teratomas can develop in almost any area of the body, but usually occur in median sites [2]. They have a reported incidence of 1 in 4000 live births [3]. The most common sites are the sacrococcyx, anterior mediastinum, testicle, ovary, or retroperitoneum [4]. Nasopharyngeal teratomas are uncommon congenital lesions that are rarely seen in the soft palate. Most of them arise from the midline or lateral nasopharyngeal wall [5]. We here reported a male neonate with a soft palate teratoma.

2. Case report

1 day – old male baby was referred for respiratory distress secondary to the presence of an oropharyngeal mass. He was born at term, after uneventful pregnancy. The patient was kept intubated. At initial examination, a soft, purplish mass was noted protruding from his mouth (Fig. 1).

The mass was attached to the soft palatal wall. There no other abnormalities found in the head and neck region. Under general anesthesia the lesion was excised. There was no post–operative complications. On the gross pathological examination, the excisional material was a polypoid lesion of 3 × 2 × 1.5 cm in size whose surface was covered with skin (Fig. 2).

Histologically, the mass consisted of a core of lobules of mature adipose tissue admixed with fascicles of striated skeletal muscle and covered by keratinized squamous epithelium containing many hair follicles associated with sebaceous and eccrine glands (Fig. 3). These findings confirmed the diagnosis of nasopharyngeal mature teratoma also known as congenital hairy polyp.

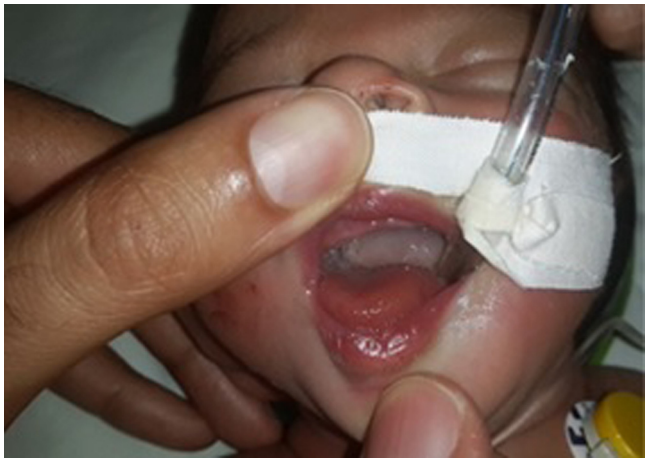

Fig. 1. 1 day – old male baby was referred for respiratory distress secondary to the presence of an oropharyngeal mass. He was born at term, after uneventful pregnancy. The patient was kept intubated. At initial examination, a soft, purplish mass was noted protruding from his mouth.

3. Discussion

Teratomas are congenital lesions and quite rare particularly in the head and neck region. Teratomas generally occur in 1 of 4000 births, but only 10% are found in the head and neck [6]. They most commonly arise from the midline or lateral nasopharyngeal wall and some reports have described a slight female predilection,

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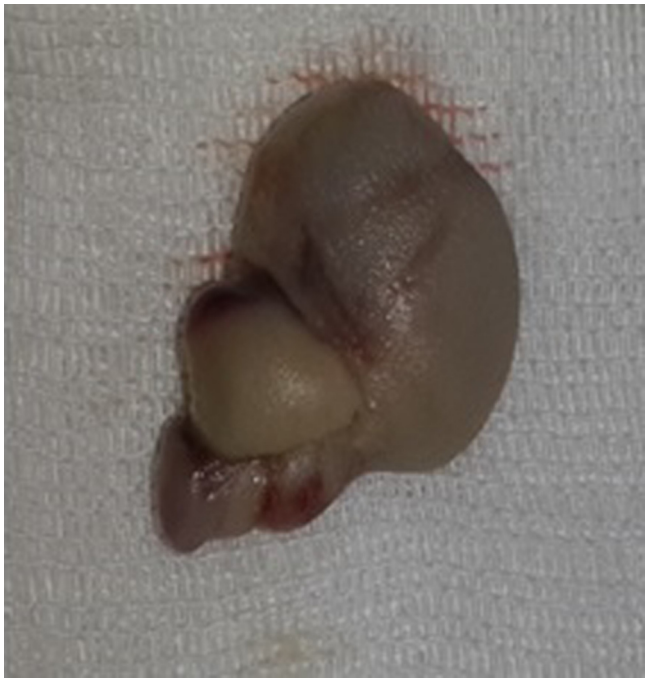

Fig. 2. The mass was attached to the soft palatal wall. There no other abnormalities found in the head and neck region. Under general anesthesia the lesion was excised. There was no post–operative complications. On the gross pathological examination, the excisional material was a polypoid lesion of 3 × 2 × 1.5 cm in size whose surface was covered with skin.

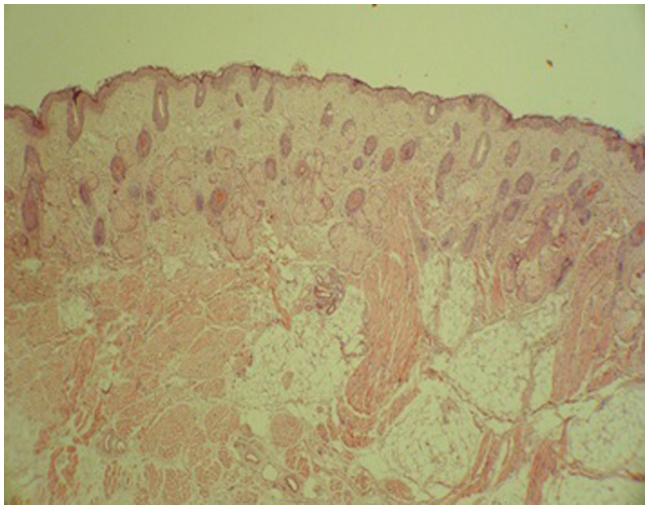

Fig. 3. Histologically, the mass consisted of a core of lobules of mature adipose tissue admixed with fascicles of striated skeletal muscle and covered by keratinized squamous epithelium containing many hair follicles associated with sebaceous and eccrine glands. These findings confirmed the diagnosis of nasopharyngeal mature teratoma also known as congenital hairy polyp.

but Jiang et al. found malignant teratoma to be more common in men [7]. The majority of neonates with nasopharyngeal teratomas can be successfully intubated either via the oral or nasal routes, whereas the remainder usually require tracheostomy [8]. In 6% of all cases, teratomas are associated with malformations such as cleft palate, bifid tongue, and bifid uvula [9]. Our patient did not have any malformations. Most of the congenital nasopharyngeal lesions present as an emergency respiratory problem and require immediate surgery [10]. Teratomas can be either benign or malignant. Benign ones consist of mature tissue components, while those with malignant potential contain immature tissues; benign teratomas may undergo malignant change with age [7]. Histopathological examination showed the mass in our case to be composed of multiple mature tissues with no juvenile cells, which confirmed a benign tumor. The main therapy of teratoma is complete surgical excision, which depends on the site of the tumor [2].

4. Conclusion

Teratomas of the head and neck are rare congenital lesions. Nasopharyngeal teratomas are even morerare. The most common presenting symptom of nasopharyngeal teratomas is respiratory distress. Patients with teratomas are more likely to require intensive airway management prior to surgical excision of the lesion.

Conflicts of interest

There is nothing to declare.

Sources of funding

There is nothing to declare.

Consent

Written informed consent was obtained from the patient's parent for publication of this case report and accompanying images. A copy of the written consent is available for the review of the Editor-of-Chief of this journal on request.

Author's contribution

Mohsen Rouzrokh : surgeon of the case.
Fateme Azizi: report and gather data.
Yalda Nilipour: diagnose the pathological specimen.

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