

HAIRY POLYP OF THE NASOPHARYNX

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Gazi Medical Journal 2000; 11: 43-46

SUMMARY : *Nasopharyngeal hairy polyps are rare benign congenital malformations, which usually appear in the first few weeks after birth. A 4-month-old female infant with acute respiratory distress and history of frequent vomiting is presented in this report. The infant was operated on for a pedunculated nasopharyngeal mass, which was revealed to be hairy polyp by histopathologic examination. Hairy polyps should be considered in the differential diagnosis of nasal obstruction, infantile respiratory distress, or unexplained frequent vomiting.*

Key words: *Nasopharyngeal Neoplasms, Polyps, Adolescence, Respiratory Distress Syndrome Vomiting.*

INTRODUCTION

The hairy polyps are rare but well recognized developmental malformations of the nasopharynx, which are infrequently associated with other congenital abnormalities (1,2). They are not true neoplasms, but a developmental anomaly of totipotential cells from two germinal layers, ectoderm and mesoderm. These embryonic cells may proliferate abnormally and differentiate into disorganised conglomerate of various tissues. The resulting pseudoneoplastic lesion is called dermoid, which is also named as hairy polyp when located in the nasopharynx (3). Previously, 119 cases of nasopharyngeal hairy polyps have been reported in the literature (1,2,4-6).

In this report, an infant with nasopharyngeal hairy polyp, who presented with acute respiratory distress and history of frequent vomiting, is presented.

CASE REPORT

A 4-month-old female infant with difficulty of breathing was brought to our emergency department in June 1996. Her history revealed frequent mild respiratory distress, vomiting, and difficulty of feeding since birth. For the last two months, her parents had also noticed an occasionally appearing, finger like gray colored mass in her mouth. Physical examination revealed an upper respiratory tract infection with muco-purulent nasal discharge and moderate respiratory distress with mild cyanosis. A protruding white-gray mass was seen when the

tongue was depressed. This polyp-like-mass appeared to be originating from the oropharynx with a stalk. Additional edema caused by respiratory tract infection was considered to deteriorate the infant's respiration. As the infant was in short of breathing, she was directly taken into the operating room without any radiological examination. Under general anesthesia with oral intubation, transnasal nasopharyngeal examination was done by using a 2.7 mm rigid endoscope. A gray-white polypoid mass, originating from the posterior nasopharyngeal wall with a stalk, was detected. First, a needle aspiration was done to rule out a meningocele, and no blood or cerebrospinal fluid was aspirated. Then, under guidance of the endoscope, the 4x2

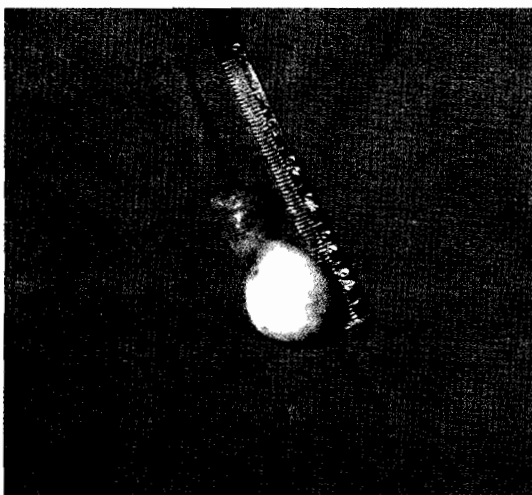


Fig. 1: Gross appearance of 4x2 cm gray-white polypoid mass.

cm-size-mass was extirpated transorally by using a polyp snare (Fig 1). There was no severe bleeding, and the operation was completed without a need of nasal packing. The infant showed a dramatic improvement in the early postoperative period.

Histopathological examination revealed a polypoid mass covered with epidermis, keratinised stratified squamous epithelium. Underneath the epidermis there were connective tissue bundles, striated muscles, seromucinous glands and fatty tissue. There were also pilosebaceous units opening to the surface of the epidermis (Fig 2-a,b). These findings were in accordance with the hairy polyp.

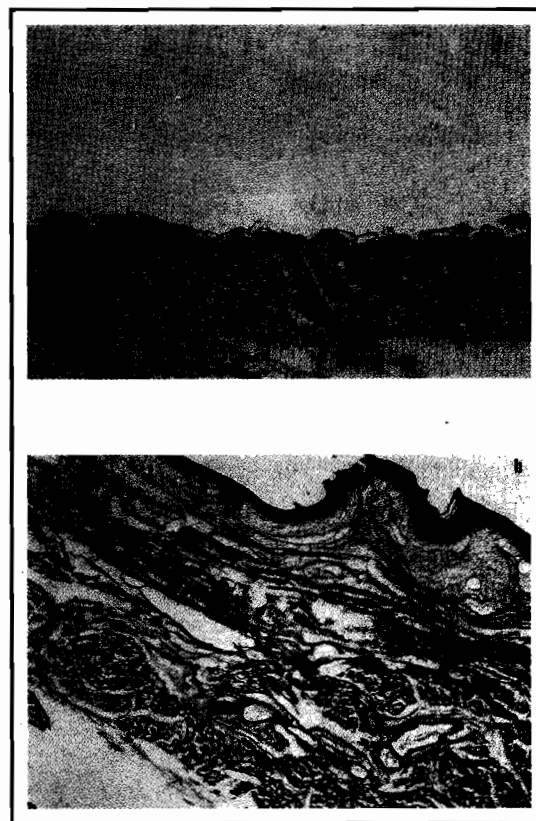


Fig. 2: (a) (X20-HXE section) Polypoid mass containing striated muscle bundles, seromucinous glands and pilosebaceous units covered with keratinized stratified squamous epithelium. (b) (X50-HXE section) Striated muscle bundles and seromucinous glands covered with keratinized stratified squamous epithelium.

DISCUSSION

Hairy polyps are dermoid lesions of nasopharynx, mostly located on the posterior wall above the superior plane of soft palate, and rarely on the Eustachian tube or oropharynx (1,6-8). They are benign lesions of females predominantly, with no known case of neoplastic transformation (1,3). They are revealed most frequently in the neonatal period but may occasionally be discovered in childhood and rarely in older age (9). The lesions are generally single with only few cases of double presentation

in the literature (3). Depending on the location, size and mobility, different symptoms and findings may be present. Mild respiratory difficulty, nasal obstruction and drainage are the most common complaints whereas feeding difficulty, vomiting, coughing, ear-ache and drainage, epistaxis, and protruding mass in the oropharynx may also accompany. (1-11) Our case had frequent mild respiratory distress, vomiting and difficulty of feeding since the birth. Physical examination revealed an upper respiratory tract infection with muco-purulent nasal discharge and moderate respiratory distress with mild cyanosis. A protruding white-gray mass was seen when the tongue was depressed with a blade during oral cavity examination. Additional effect of upper respiratory tract infection possibly increased edema and resulted in respiratory difficulty. Depending on the position of body, the shifted tip of the pedunculated mass might have also touched the pharynx and larynx and caused irritation. This may explain the frequent vomiting and respiratory difficulty in our case.

In a newborn presenting with findings and symptoms of nasopharyngeal obstruction, foreign body, choanal atresia and a nasopharyngeal mass should also be considered in the differential diagnosis. The differential diagnosis of nasopharyngeal masses in a newborn includes hamartoma, teratoma, dermoid, haemangioma, neuroblastoma, glioma, meningocele and a foregut, thymic, thyroglossal or lingual cyst (3,5). Radiological examination has an important play in ruling out these entities (5). However, it was not possible to obtain a radiological examination in our case, due to the emergency of acute respiratory distress and only a needle aspiration could be done. A nasopharyngeal mass can be identified by its projection into the pharyngeal air column on lateral neck radiography. It can be useful to identify such lesions but cannot differentiate between their tissue characteristics (5). Computerized tomography (CT) and magnetic resonance imaging (MRI) can differentiate between their tissue characteristics, localize the origin of tumor, rule out any intracranial and pharyngeal extension of lesion, and evaluate Eustachian tube and middle ear involvement (2,6,8,11). In addition, CT or MRI can distinguish between a benign fat-containing tumor, such as the hairy polyp, and cyst or lesions

of vascular or neurogenic origin (5).

The treatment is prompt surgical extirpation with very rare cases of recurrence (4). In the differential diagnosis of infantile respiratory distress, vomiting and nasal obstruction, this rare benign malformation should be remembered. During evaluation of any nasopharyngeal mass in the newborn, an extracranial extension of glioma or meningocele should also be considered. Therefore, preoperative CT or MRI scans are recommended if possible, and peri-operative palpation and aspiration of the nasopharyngeal mass should be performed.

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