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BRIEF COMMUNICATION

Intermittent Dyspnea and Cyanosis in a Newborn Caused by a Hairy Polyp

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1. Introduction

Hairy polyps were first described by Brown-Kelly[1] in 1918. They are rare benign malformations of the oropharynx and nasopharynx comprising elements of ectodermal and mesodermal origins foreign to the sites in which they are found.[2] Although rare, they have to be considered in children, especially in newborns, with intermittent dyspnea.

We herein report a case of a hairy polyp arising from the lateral pharyngeal wall that was diagnosed shortly after birth because of intermittent dyspnea, cyanosis, and a strong urge to gag.

2. Case Report

A full-term boy (38 + 4 weeks) was born by cesarean delivery after an uneventful pregnancy. His postnatal adaption was normal. Two hours after birth the boy suddenly had an episode of dyspnea, cyanosis, and a strong urge to gag. A few seconds later, the boy was clinically normal and had a percutaneous arterial oxygen saturation of 100%. Upon inspection of the pharynx, a sausage-shaped tumor at the lateral pharyngeal wall was noted. During the following hours, the boy had recurrent episodes of the previously described clinical signs. These episodes could be overcome by changing his position into prone and head-down position.

The boy was intubated in the operating theater, and the $3.5 \times 1.0\ cm^2$ tumor (Figure 1) was removed at its base from the left pharyngeal wall by an otolaryngeal surgeon. Results of a histological analysis of the tumor specimen ruled out malignancy and revealed a hairy polyp covered with epidermis, consisting of fat tissue, muscle, skin appendages, and cartilage. After surgery, the boy was extubated and was discharged after several days.

Two months after the surgery, a magnetic resonance imaging (MRI) revealed a mass—considered as mucus—in the resected area, measuring 2 mm in diameter. In the second MRI that was performed 6 months later this mass could not be detected.

3. Discussion

Hairy polyps are non-neoplastic tumors. They can occur anywhere in the body.[3,4] The most common sites are the

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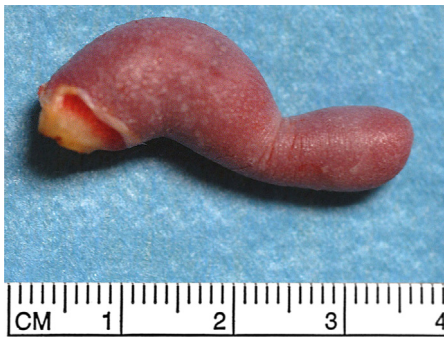

Figure 1 Hairy polyp covered with skin.

oropharynx and nasopharynx.[4] Although they are rare with an incidence of 1:40,000,[5,6] they are the most common congenital nasopharyngeal tumors.[5–7] There is a female predominance with a female-to-male ratio of 6:1.[4,8–10] Hairy polyps are not associated with congenital syndromes and there is no genetic predisposition.[4,6,7] Anomalies such as soft and hard palate clefts, agenesis of the uvula and external auricle, ankyloglossia, and facial hemihypertrophy may be associated with hairy polyps.[3,4,6,7,9] Differential diagnoses are teratomas, hamartomas, epidermoid cysts, hemangiomas, nasal gliomas, neuroblastomas, and meningoceles.[2] Hairy polyps contain elements of two germinal layers, namely, the ectoderm and the mesoderm.[2,4,9] They may be best classified as choristomas. Choristomas contain normal tissue in an anatomically foreign location. Choristomas can be distinguished from hamartomas, teratomas, and dermoids. Hamartomas are lesions that are formed of a focal overgrowth of mature cells in an anatomically normal location. Teratomas contain mature and immature elements of all the three germ layers. Dermoids are cystic lesions containing desquamated epithelial products.[2,5,10,11]

The clinical presentation of hairy polyps depends on size and location of the lesion.[10] Most are detected during the newborn period. Intermittent upper airway obstruction with inspiratory stridor, feeding problems, coughing, and gagging attacks are typical symptoms.[4,7,10,12] In our case, the symptoms started remarkably early. Two hours after birth, the boy had the first of repeated episodes of upper airway obstruction and gagging attacks. It was also striking that the boy appeared to be clinically normal between these attacks.

Hairy polyps are treated by complete surgical excision of the tumor at its base.[2] The lesions may reoccur if they are not resected totally.[5] To date, there have been no reports of malignant transformation.[4,6,7,10] In our case, the histological investigation ruled out malignancy, and the MRI scan ruled out recurrence of the hairy polyp.

Although the diagnosis of a hairy polyp is very rare, it should be considered in the differential diagnosis of life-threatening airway obstructions. In our case, the combination of the two symptoms of intermittent airway obstruction and gagging in an otherwise healthy newborn led to the diagnosis.

Conflict of interest

The authors state that there is no conflict of interest regarding the publication of this article.

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