UNILATERAL CHOANAL ATRESIA (A Case Report)

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Introduction

Congenital choanal atresia is an uncommon developmental anomaly. Unilateral atresia is much more common than bilateral atresia [1]. Both may be associated with other anomalies like congenital heart disease, external ear malformation, colobomata of eyelid or iris, gonadal hypoplasia, mental retardation, and cleft palate [2,3].

A patient with unilateral membranous atresia, who was brought with severe persistent nasal vestibulitis, is being reported. The patient was treated by simple perforation of atresia and dilatation which yielded satisfactory result.

Case Report

A one and half year old male child was brought with symptoms of discharge from right nostril and a hoarse weak cry since birth. Clinical examination revealed mucopurulent discharge with severe vestibulitis on right side. There was no bubbling of air in nasal discharge during respiration. Further examination showed a high arched palate, bifid uvula and polydactyly (6 digits) of the left foot. Choanal atresia (right) was suspected and confirmed by a choanogram (Fig).

After routine investigations the child was examined under general anaesthesia. Atresia was palpated using a curved haemostat. It was felt to be membranous and was perforated with the same haemostat. Posterior choana was dilated using urethral dilator of size 23 Fr. A 6 mm diameter IJ-shaped endotracheal Portex tube was introduced in both the choanae and fixed anteriorly to the septum. Examination of larynx during recovery from anaesthesia revealed left vocal cord fixed in paramedian position and right cord fully mobile. There was no growth or stenosis in the glottis or subglottis.

Postoperatively the child was treated with regular suction from the tube in the nose. Nasal tubes were removed under general anaesthesia after 8 weeks. Follow-up examination after 3 months showed a patent right choana but the child continued to have hoarseness.

Discussion

Choanal atresia is the most common congenital cause for nasal obstruction in the neonatal period. Obstruction may be bony (90%) or membranous (10%) [4]. Bilateral atresia presents soon after birth with dyspnoea and cyanosis. It is managed on emergency basis. Unilateral atresia usually pre-

Fig. Preoperative choanogram

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sents at the age of 4 to 6 years with unilateral nasal discharge. Our patient presented early because of severe nasal vestibulitis and excoriation of skin.

Diagnosis is based on clinical findings and confirmed by lateral choanogram using biligradin. Computed tomography scan can indicate whether the atresia is bony or membranous [5]. We diagnosed our case on the basis of clinical findings and choanogram. Computed tomography was not carried out. Unilateral atresia is surgically treated at the age of 4 to 6 years. We operated our case at the age of one and half years as the child had severe vestibulitis.

The atresia may be approached during surgery either transnasally or transpalatally. Transnasal approach is simpler. It can be used for either membranous or thin bony atresias but atresia may recur in up to 30 per cent cases. Transpalatal approach requires extensive surgery but gives good access and help in creating a larger choana. We treated our patient by transnasal perforation and dilatation. Stenting of choana is necessary after surgery to keep it patent. The different types of stents used

are portex endotracheal tubes, Foley's catheters and silastic tubes [6-8].

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