UNILATERAL CHOANAL ATRESIA

A CASE REPORT

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Summary

A report on a case of unilateral choanal atresia is presented. The etiology, diagnosis and treatment of the condition are also discussed.

Case Report

The patient, a sixteen year old girl, presented at St. Luke's Hospital with foul smelling discharge from the right side of the nose. The nasal discharge had been noted for over fifteen years. At five years her tonsils had been removed with the hope of curing the unilateral nasal obstruction of which she had always been complaining.

On clinical examination nothing abnormal was noted except that there was severe right-sided nasal obstruction. On posterior rhinoscopy a total bony atresia of the right posterior choanae was noted. A rhinogram was taken (fig. 1) and this showed a right-sided nasal obstruction. Patient refused treatment.

Discussion

Choanal atresia was first described by Otto in 1830 (Otto A., 1830). This condition is a rare one. PoIsen et al. (1943) found that in the period 1829-1945, only five hundred cases had been reported. Later on, Ransome (1964) reported two-hundred and fifty-one cases in the period 1945-1963. Choanal atresia may be unilateral or bilateral. The nasal obstruction may be membranous and/or bony. Choanal atresia is a familial condition and may be associated with several other diseases such as high-arched palate, facial asymmetry, bifid uvula, coloboma of iris and retina, double tragus, double congenital aural fistula, cleft ear lobe, polydactylism, flat nose with separation of lower lateral cartilages, Teacher Collin's Syndrome, malrotation of gut, Meckel's diverticulum and congenital heart disease may all be found in connection with choanal atresia. In connection with unilateral choanal atresia one may find webbing of trapezium, high palate, lop ears and Turner's Syndrome. There is also a connection between unilateral choanal atresia and rhinoliths (Worgan, D., 1966). Such rhinoliths occur more in female than in males and are found...
mostly in the lower half of the nasal cavity. Fully sixty per cent of choanal atresia
cases are unilateral and sixty per cent of the unilateral cases are right-sided atresias.

As regards etiology, most of the cases
are congenital, only very few being caused
by syphilis, diphtheria, trauma or tuber-
culos is. The most widely held theory as
to the etiology of this disease is that which
ascribes it to persistence and failure to
rupture of the buccopharyngeal membrane.
Some attribute the etiology of this disease
to medial growth of the ventricle and the
medial processes of the palate bone.

As regards the clinical picture, most
of the cases of bilateral choanal atresia
present at birth with the respiratory dis-
tr ess syndrome and those who manage
to live through mouth breathing will present
later in life with mucoid secretion from
both nostrils. As a rule the sinuses and
ears are uninvolved and the hearing is
usually unaffected. Cases of unilateral
choanal atresia usually present with uni-
lateral nasal obstruction and nasal defor-
mity. Diagnosis of this condition is made
on clinical grounds, probing, X-ray and
posterior rhinoscopic examination.

As regards treatment (Charles R. and
Smith R.) of the condition all bilateral
choanal atresia cases need emergency ope-
ration and removal of the obstruction and
insertion of Aechersen’s cannulae, to re-
store patency of the nasal airway, while
unilateral cases need no urgent treatment.
Very few unilateral choanal atresia cases
are operated before the age of three years
and many are adults by the time diagnosis
is made. Transpalatal approach for the
removal of the obstruction is the best in
adults and older children with unilateral
obstruction.

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