

Extraneous Nostril: Review of the Literature

Surya Kanta Pradhan

Corresponding author

Surya Kanta Pradhan
Department of Plastic and Cosmetic Surgery, Apollo Hospitals, 251, Sainik School Road, Unit-15, Bhubaneswar 751005, Orissa, India.

Received Date: Aug 22, 2022

Accepted Date: Aug 23, 2022

Published Date: Sep 23, 2022

Abstract

Supernumerary nostrils are a very uncommon congenital condition caused by abnormal embryological development. There have only been 33 examples of supernumerary nostrils described, according to an examination of the literature. They may be linked to additional congenital abnormalities. Depending on how far along in the embryological development the defect is, the accessory nostril may or may not interact with the ipsilateral nasal cavity. An instance of a left nostril with an abnormally high number and no nasal cavity connection is given. The surgical procedure is discussed, and many conjectural hypotheses on the development of extra nostrils are also reviewed.

Key words

Extraneous Noses, False Nose, and True Nose

Introduction

An extremely uncommon sort of congenital abnormality is the extra nostril. The first case was documented by Lindsay (1) in 1906, who wrote about a patient with bilateral supernumerary nostrils. In that situation, the accessory nasal cavities communicated with the ipsilateral nasal cavities, and the external openings of the supernumerary nostrils were located above the normal nostrils. In the report, Lindsay (1) put forth the parallel evolution or dichotomy via atavism idea. A patient with a unilateral supernumerary nostril that connected to the nasal cavity was described by Tawse (2) in 1920. A third nostril that was located beneath the left nostril was described by Reddy and Rao (3) in 1987. They proposed that the extra nostril was caused by an auxiliary placode or pit. It is possible to have an accessory nasal placode either above or below the primary nasal placode. The case described in this article is a six-month-old girl who developed a supernumerary nostril with a small accessory nasal cavity that did not interact with the regular nasal cavity on the same side.

Case Study

A six-month-old child was brought by her parents to the plastic surgery outpatient department for evaluation of an irregular opening above the left nostril that had been present since birth. A history of discharge from the accessory opening was not provided by the patient's parent. The mother's history revealed that her pregnancy had gone without a hitch and the baby had been born normally. The youngster had accomplished typical developmental milestones for her motor and mental abilities. There was no known familial history of this abnormality. An 8 mm-long hollow was discovered during a physical examination above the left nostril. The accessory nasal cavity was small and did not communicate with the ipsilateral regular nasal cavity, according to a nasal endoscopy. The typical nasal cavities appeared to be free of any abnormalities.

The patient went through remaking of the left nostril. With the patient under broad sedation, a peri alar cut was made on the left nostril. Septum or parcel, which was connecting the peak of the collumela to the alar base, was extracted including a little piece of alar base of misleading nostril. The de-epithelized alar base of bogus nostril appended to de-epithelized part of alar base of the genuine nostril to reproduce the nostril legitimate. An overabundance part of the nasal composite tissue was extracted on the alar edge of the embellishment nasal depression and the appropriate shape was fundamental tained. A reinforce stitch was applied to the alar edge. The patient recuperated predictably. The family members were encouraged to keep the nostril retainer for keeping up with nasal shape for a considerable length of time. At the four-week follow-up assessment, the patient was getting along admirably. It has been seen there is minor disparity in the place of the alar base. Hence, rectification of the error of alar edge with conchal composite unite and tip plasty will be arranged in a later period.

DISCUSSION

The face creates from five facial primordia showing up as prominences around the stomodeum or crude mouth. There is a solitary middle front nasal unmistakable quality and matched maxillary and mandibular prominences. These prominences are delivered by the brain peak cells moving into the branchial curves during the fourth seven day stretch of gestation. Facial improvement happens for the most part between the fourth and the eighth week. Toward the finish of the fourth week, reciprocal thickenings create on the ventrolateral ectoderm of the front nasal noticeable quality, known as nasal placodes. The edges of the placodes multiply into average and parallel nasal prominences, coming about

in the placodes lying in miseries known as nasal pits. The average nasal prominences consolidate and with the maxillary and horizontal nasal prominences, bringing about division of the nasal pits from the stomodeum. The nasal pits become nasal sacs and afterward form into nostrils and nasal cavities (4). Exaggerated nostrils are incredibly interesting inherent inconsistencies of indistinct etiology.

In 1962, Erich (5) detailed an instance of twofold nose. He likewise upheld Lindsay's hypothesis of division by atavism or equal development, and he further guessed that in the event that the frill nasal pit is found too horizontally, the combination of the lamina isn't impacted, which prompts the arrangement of an exaggerated nostril. In 1972, Onizuka and Tai (6) detailed the instance of a solitary frill nostril that had created over the nasal ala.

In 1987, Nakamura and Onizuka (7) detailed a comparative case; they speculated that the reason was presumably a limited deformity in the parallel nasal cycle. They estimated that during the expansion of mesenchymal cells in the horizontal nasal favorable to cress, a concavity or crevice shows up in this space unintentionally and, subsequently, this parallel nasal cycle is partitioned into two portions, bringing about two nostrils and two alae on one side. This speculation can extrapolate the presence of adornment nostril either above or horizontal (as for our situation) to the normal nostril or medially, contingent upon the place of progress in the sidelong nasal cycle. As per Erich (5), during the course of the development of the nasal placode, four nasal pits showed up evenly, each turned into a nasal sac, and the average two, which were mediated between the two nasal laminae, forestalled the laminae from combining into one nasal septum. This brought about twofold nose. Effusive nostril is framed when the embellishment nasal pit is found so horizontally to the nasal lamina that the frill nostrils are shaped over the regular nostril and, hence, don't upset the combination of the nasal laminae (8). revealed an instance of exaggerated nostril with additional lower horizontal ligament and furthermore upheld the hypothesis undeveloped organism coherent fissuring of the parallel nasal interaction. Sinha et al (9) detailed an instance of effusive nostril with microcornea and inborn waterfall and hypothesized that oddity being developed of the nasal placodes is the reason. The presence of alar ligament in present case report depicts the embryological fissuring of the parallel nasal cycle and development of effusive nostril. This hypothesis has been upheld by different creators in past.

In 1992, Chen and Yeong (10) portrayed an instance of respective super-numerary nostrils that were arranged underneath the ordinary nasal openings, and they proposed treating such peculiarities by organized restorative surgery. In 2001, Hallak et al (11) detailed an instance of exaggerated nostril in which a visually impaired pit was available in a regularly evolved nose. They supported that restorative medical procedure be performed at an early age to forestall

any conceivable alar deformity. The present case is the 34th instance of effusive nostril detailed. Sah et al (12) investigated 33 instances of effusive nostril that had been accounted for worldwide. Most detailed instances of exaggerated nostrils have been unilateral, and most were related with other craniofacial malformations, like a facial split. An exaggerated nostril could conceivably speak with the ipsilateral ordinary nasal cavity, contingent upon the degree of the oddity's embryological movement (11). Our instance of exaggerated nostril was not speaking with the nasal cavity and it is an enormous distortion of the nose.

Conclusion

The cause and progression of this congenital defect are mostly speculative due to its extraordinary rarity. All authors recommend early surgery, including the removal of the fistulous or blind tract, or performing a fistulorhinostomy when the proximal part is not accessible. This is one common observation that has been made. Early surgery is advised to prevent potential future ear deformity and to restore a more normal look, both of which are necessary for healthy psychosocial development (13). Given its rarity, a genetic analysis of this aberration may be recommended to ascertain its cause. A large series of operations may yield better aesthetic results.

References

1. Lindsay B. A nose with supernumerary nostrils. Transactions of the Pathology Society of London. 1906;57:329.
2. Tawse HB. Supernumerary nostril and cavity. Proc R Soc Lond 1920;13:28.
3. Reddy KA, Rao AK. Triple nostrils: A case report and review. Br J Plast Surg 1987;40:651-2.
4. Moore KL. The developing human: Clinically oriented embryology. Philadelphia: WB Saunders, 1988;207.
5. Erich JB. Nasal duplication. Report of case of patient with two noses. Plast Reconstr Surg 1962;29:159-66.
6. Onizuka T, Tai Y. Supernumerary nostril. Case report. Plast Reconstr Surg 1972;50:403-5.
7. Nakamura K, Onizuka T. A case of supernumerary nostril. Plast Reconstr Surg 1987;80:436-41.
8. Zbar RI, Rai SM, Ghimire, P. Repair of congenital nasal anomalies involving redundancy of structures. Cleft Palate Craniofac J 2013;40:214-7.

9. Sinha R, Das S, Sikder B, et al. Supernumerary nostril with congenital cataract. *Ear Nose Throat J* 2005;84:716,718-9.
10. Chen MT, Yeong EK. Supernumerary nostrils. *Br J Plast Surg* 1992;45:557-8.
11. Hallak A, Jamjoom, H., Hosseinzadeh, T. Supernumerary nostrils: A case report and review. *Aesth Plast Surg* 2001;25:241-3.
12. Sah BP, Bhandary S, Pokharel A, Shilpakar SL, Chettri ST, Paudel D. Supernumerary nostril associated with dermoid cyst: A rare case report and review of literature. *Am J Med Case Rep* 2014;2:52-4.
13. Chen CT, Chen YR. A case report of triple nostrils. *ChangGung Med J* 1994;17:280. help