

# Giant polypoid formation arising from the maxillary sinus and massively involving nasopharynx and oropharynx: case report

Francesco Asprea<sup>1\*</sup>, Francesco Carfi<sup>2</sup>, Gregorio Micali<sup>3</sup>, Giulia Lucchesi<sup>4</sup>

<sup>1</sup>Head of Division of Otolaryngology C.O.T. Clinic – via Ducezio,1, Messina, Italy

<sup>2</sup>Senior Consulting of Division of Otolaryngology C.O.T. Clinic – via Ducezio,1, Messina, Italy

<sup>3</sup>Co- Director of Division of Otolaryngology , Head of the Maxillofacial Surgery Unit C.O.T. Clinic – via Ducezio,1, Messina, Italy

<sup>4</sup>Co- Director of Division of Otolaryngology , C.O.T. Clinic – via Ducezio,1, Messina, Italy

---

**Abstract:** The antro-coanal polyp is a neof ormation originating from the maxillary sinus occupying the homolateral nasal fossa extending to the nasopharynx. The therapy is generally surgical and takes place through endoscopic surgery. In this work a neof ormation of this kind is described which massively invaded nasopharynx and oropharynx whose removal was carried out radically through the oropharynx. The completeness of the excision was checked with a nasal endoscopic approach. The uncommon size and the oropharyngeal removal make this clinical case remarkable.

**Keywords:** antro-coanal polyp, maxillary sinus, nasopharynx, oropharynx.

---

## I. INTRODUCTION

Antrochoanal polyps represent only ~5% of sinonasal polyps . They are most commonly seen in young adults but the observation in children is not uncommon. Clinical presentation is usually with an unilateral obstructed nasal passage and frequently the polyps goes down from nasopharynx to oropharynx and may be visible through the mouth .The exact etiology is not known, but it is thought that infection may be a common causative association. These polyps usually have a narrow stalk arising from the maxillary sinus; due to the narrow pedicle, vascular compromise with secondary change resulting in organizing hematoma and neovascular changes may be seen.

## II. PATIENTS AND METHODS

A 47-year-old male came to our observation who had been suffering from left-sided homolateral nasal obstruction for about a year. A CT scan of the facial mass was prescribed which showed the presence of a neof ormation from the left maxillary sinus occupying the entire left nasal fossa and extending to the nasopharynx and massively occupying the oropharynx. The magnitude of the mass and its rapid unilateral growth led to a suspicion of a malignant neoplasm or an inverted papilloma, for which a preoperative biopsy was performed which results in inflammatory lymphoplasmacytic polypoid neof ormation with areas of squamous metaplasia. Surgery under general anesthesia was planned for the removal of the neoplasm. Considering the massive oropharyngeal invasion and the enormous size of the mass it was decided to start with an oropharyngeal approach followed by a subsequent nasal endoscopic approach. After positioning of Mc Ivor's opener and careful disinfection of the operative field with iodized disinfectant the neof ormation that completely blocked the nasopharynx and massively occupied the oropharynx was visualized. The oropharyngeal component of the neoplasm was grasped with a Bloomke forceps in order to remove it and then pass to the endoscopic phase of the intervention; after an initial resistance the operators noticed that the neof ormation slowly came out but not detaching itself from the rhinopharyngeal component but in monoblock with this and with the nasosynusal component of the same neoplasm, as shown in figure 1. Once the haemostasis has been carried out with swabs impregnated with tranexamic acid, we proceed to the endoscopic selection of the nasal and paranasal cavities to verify the complete removal of the neoplasm. of the maxillary sinus did not show residual polypoid formation.



**Fig.1 – Giant polypoid formation**



**Fig.2 – Comparison with surgeon's hand**



**Fig.3 – Comparison with Yankauer suction tube**

### III. RESULTS

The patient was discharged during the day without nasal dressing. The postoperative course was regular and there were no complications. The macroscopic examination of the surgical piece revealed a neoformation of length 18 centimeters, maximum width 4 centimeters and weight 47.95 grams. The histological examination confirmed the preoperative result of a giant inflammatory polyp with a prevalent lymphoplasmacellular component and with focal metaplasia of the superficial epithelium.

### IV. CONCLUSION

There is a very wide scientific literature on nasal polyposis and antrocoanal polyps in particular. The pathology was described for the first time by Palfyn in 1753 . However, in 1906 Kilian described the pathology in detail. The works in literature study the origin of the pathology, the surgical therapy in the adult patient, in the elderly and in the child, all proposing an endoscopic surgical approach for the removal of the maxillary component of the polyp. The case described by us appears to be worthy of attention not only for the unusually large dimensions of the polypoid mass, but also for the

fact that the surgical approach in this case was exclusively oropharyngeal because the neoplasm was completely removed also in its maxillary component, during the oropharyngeal time, while the nasal endoscopic time only served as confirmation of the complete removal of the mass and of the hemostasis. It was not necessary to have a medium meatotomy to control the inside of the maxillary sinus as the neoformation had already produced a large antrostomy.

#### REFERENCES

- [1] Palfyn J. Anatomie Chirurgicale. Paris: 1753.
- [2] Killian G. The origin of choanal polypi. *Lancet*. 1906;2:81–82.
- [3] Larsen PL, Tos M. Origin of nasal polyposis. *Laryngoscope*. 1991;101:305–12.
- [4] Hong SK, Min YG, Kim CN, Byun SW. Endoscopic removal of the antral portion of antrochoanal polyp by powered instrumentation. *Laryngoscope*. 2001;111(10):1774–78.
- [5] Cetinkaya EA. Giant antrochoanal polyp in an elderly patient: Case report. *Acta Otorhinolaryngologica Ital*. 2008;28:147–49.
- [6] Maldonado M, Martínez A, Alobid I, Mullol J. The antrochoanal polyp. *Rhinology*. 2004;42:178–82.
- [7] Towbin R, Dunbar JS, Bove K. Antrochoanal polyps. *AJR Am J Roentgenol*. 1979;132:27–31.
- [8] Branstetter BF, Weissman JL. Role of MR and CT in the paranasal sinuses. *Otolaryngol Clin North Am*. 2005;38:1279–99.
- [9] Lopatin A, Bykova V, Piskunov G. Choanal Polyps: One entity, one surgical approach? *Rhinology Jun*. 1997;35:79–83.
- [10] Stammberger H, Hawke M. Essentials of functional endoscopic sinus surgery. St Louis: Mosby; pp. 103–05.
- [11] Basak S, Karaman CZ, Akdilli A, Metin KK. Surgical approaches to antrochoanal polyps in children. *Int J Pediatr Otolaryngol*. 1998;46:197–205.
- [12] S. Kodur, S. Malavalli Siddappa, A. M. Shivakumar - Giant Antrochoanal Polyp-A Rare Presentation - *J Clin Diagn Res*. 2017 Jan; 11(1): MD01–MD02. Published online 2017 Jan 1