CASE REPORTS

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Bilateral Antro-Choanal Polyps in an Elderly Female

ABSTRACT

Objective: To report the first case of primary bilateral antro-choanal polyps in the elderly age group.

Methods:

Design: Case report
Setting: Tertiary Government Hospital
Patient: One

Result: A 60-year-old, non-allergic female with progressive bilateral nasal obstruction was subsequently diagnosed with bilateral antro-choanal polyps. Endoscopic sinus surgery was performed and the patient remained asymptomatic on one year follow-up.

Conclusion: Antro-choanal polyps can occur bilaterally in the elderly age group. To the best of our knowledge, this is the first reported case of primary bilateral antro-choanal polyps in an elderly female.

Keywords: *antro-choanal polyp, bilateral, elderly, female*

Antro-Choanal Polyps [ACP] are benign, solitary lesions which arise from the mucosa of the maxillary sinus. The mucosa usually prolapses through the maxillary ostium and may protrude through the accessory ostium, if present. Antro-choanal polyps usually involve the middle meatus. They increase in size and gradually progress towards the choana and nasopharynx and typically appear as a smooth, pale or bluish solitary mass on anterior or posterior rhinoscopy. Antro-choanal polyps are generally recognized to represent approximately 4-6% of all nasal polyps and are more prevalent in the pediatric population.[1]

Killian was the first to describe this entity in 1906.[2] It is nearly always unilateral and bilateral ACP is an extremely rare entity and seldom found in the literature. [3,4,5] A Pubmed search of MEDLINE, using the search terms 'bilateral,' 'antrochoanal polyp'and 'elderly' did not yield any report of primary bilateral ACP in an elderly person. The oldest report of primary bilateral ACP was in a 24-year-old female[6] while post-operative bilateral ACP was documented emerging from previously-performed inferior meatus antrostomies in a 45-year-old female.[7] We report what may be the first such case of primary bilateral ACP in an elderly female.

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CASE REPORT

A 60-year-old female presented with gradually progressive right-sided nasal obstruction over the last six years. She did not seek any medical advice until similar symptoms developed in the left nasal cavity over the last 2-3 months. There was no history of pain, itching, sneezing, nasal bleeding or any other type of discharge. There was no history of associated asthma or allergy.

On anterior rhinoscopy, smooth, pale, polypoidal masses were found in both nasal cavities. The choanae and nasopharynx were free from the polyps on posterior rhinoscopy. Nasal endoscopy showed the polypoidal masses arising from both maxillary sinuses and protruding from their natural ostia. Coronal non-contrast Computed Tomography (CT) scans revealed both maxillary sinuses filled with hypo-dense soft tissue shadows extending into the corresponding nasal cavities, typical of antro-choanal polyps. On both sides, the maxillary ostia were considerably widened. There were small amounts of retained secretions in the ethmoid sinuses but the frontal sinuses were clear. *(Figure 1)* Differential blood counts and serum immunoglobulins were within normal limits.

The polyps were removed from both sides via endoscopic sinus surgery under general anaesthesia. On visualising the sinus with a 4.0 mm 70 degree nasal endoscope, the polyps were found to originate from the anterior and the lateral walls of the sinus cavities. The gross appearance of both specimens was bluish, smooth and boggy with constrictions corresponding to the maxillary ostium. (*Figure 2)* The histopathologic report confirmed the diagnosis of benign allergic (antrochoanal) polyps. The patient remained symptom-free over a one year follow-up period.

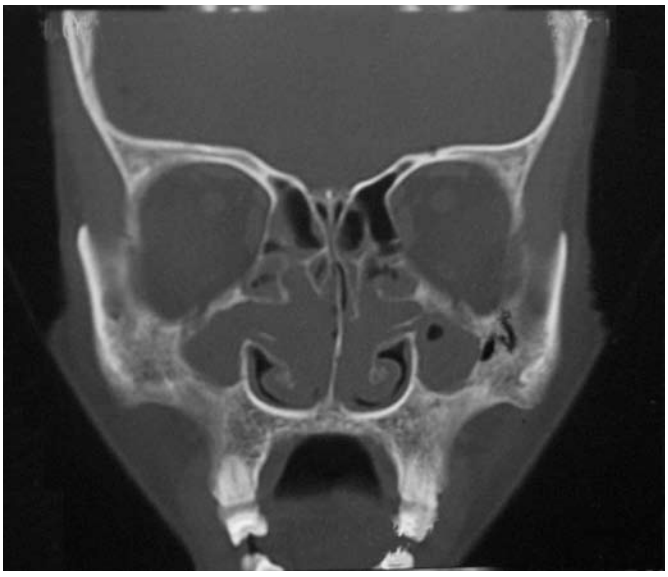

Figure 1. Coronal non-contrast CT scan showing both maxillary sinuses filled with hypo-dense soft tissue shadows extending into the corresponding nasal cavities, typical of antro-choanal polyps. Note considerable widening of both maxillary ostia and small amounts of retained secretions in the ethmoid sinuses.

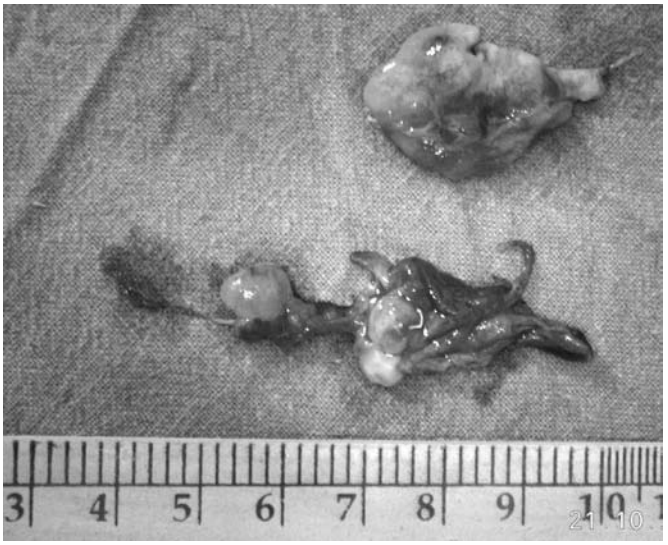

Figure 2. Photograph of both surgical specimens showing bluish, smooth and boggy character with constrictions corresponding to the maxillary ostia.

DISCUSSION

Antrochoanal polyps are thought to represent hypertrophic maxillary sinus mucosa prolapsing into the nasal cavity through the natural or accessory ostium. Although the natural history and site of origin of ACP was first reported by Killian in 1906,[2] the first description of ACP was made by Palfyn in 1753. [2] Antro-choanal polyps are almost always unilateral and bilateral antrochoanal polyps are extremely rare**.** We found only three case reports in the literature[3, 6, 8] with only one reported primary case in an adult.[6] The largest series on ACP by Frosini *et al*. reported only three cases of bilateral ACP, but no age was given for those cases.[2]

The common clinical presentation of ACP is nasal obstruction, and ACP usually presents as a hypo-attenuating mass occupying the maxillary sinus on CT scans, which distinctly reveals its extension.[9]

No definite etiological factor for ACP has been found but chronic sinusitis, cystic fibrosis and allergy may have roles in its development. [1, 8] Look *et al*. postulated that 24% of ACP had the 'aspirin-sensitive asthma triad'.[8.10]

The treatment of ACP is surgical. The aim of surgery is to remove both the nasal and antral parts of the polyp as it tends to recur after

simple avulsion. The maxillary antrum should always be carefully inspected. Different approaches are recommended for this purpose, from the classical Caldwell-Luc approach[11] to the modified Caldwell-Luc approach (intranasal antrostomy with resection of anterior part of inferior turbinate)[12] and functional endoscopic sinus surgery (FESS). The Caldwell-Luc procedure may have possible side-effects including both anaesthesia and swelling of the cheek and also carries risks to the developing teeth in children.[13] At present FESS is a very popular technique[14,15] and if properly performed there is no recurrence and very few complications.[10] Antro-choanal polyps originating from the antero-lateral wall can be removed by a combined endoscopic and transcanine approach.[16]

Antro-choanal polyps can occur bilaterally in the elderly age group. To the best of our knowledge, this is the first reported case of primary bilateral antro-choanal polyps in an elderly female.

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