Scholars Journal of Medical Case Reports
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

ENT

Giant Concha Bullosa: A Case Report

Z. Arkoubi[1*], M. El Mekkaoui[1], K. Hjaouj[1], Z. El Hafi[1], R. Bencheikh[1], A. Benbouzid[1], L. Essakalli[1]

[1]ENT Department, Speciality Hospital of Rabat

DOI: https://doi.org/10.36347/sjmcr.2025.v13i06.049 | **Received:** 04.05.2025 | **Accepted:** 10.06.2025 | **Published:** 23.06.2025

***Corresponding author:** Z. Arkoubi
ENT Department, Speciality Hospital of Rabat

Abstract | **Case Report**

Concha bullosa is a frequent anatomic variation which is misdiagnosed because, most of the time is asymptomatic. The symptoms depend on the degree of pneumatization and consequently the size of the turbinate. Usually, it's the middle turbinate which is concerned, and the treatment is exclusively consists on surgery. In this paper, we are presenting a case of a giant concha bullosa, from the diagnosis to the treatment.

Keywords: Concha bullosa, Nasal obstruction, Pneumatization, Middle turbinate, CT-Scan.

INTRODUCTION

Concha bullosa is an anatomical deformation which is usually asymptomatic. It can multiple sizes, and it could be big enough to present an obstruction of the air flow. The diagnosis is made on clinical endoscopic examination and the CT-Scan. The imaging is necessary for the diagnosis because the clinical history and the endoscopic examination only, can lead to other diagnosis. In this article we are going to present a case of a young lady suffering from nasal obstruction due to a giant concha bullosa.

CASE REPORT

It's about a 19 years old young girl suffering from permanent nasal obstruction in the left side. She reported also facial pain in the left side especially in rhinitis episodes and no other signs.

The airflow at the nasal examination is severely reduced in the left side. The endoscopic examination shows a mass that obstruct the left nasal cavity covered with a clean mucosa. This structure doesn't allow us to explore the rest of the cavity even with a nasofibroscop so we couldn't explore the cavum from that side and we couldn't precise the origin of the mass even with local anesthezia. (Figure 1)

We asked for a CT-Scan to complete the exploration so we can have diagnosis. The imaging reveal a giant middle turbinate full with air obstructing the totality of the nasal cavity. (Figure 2)

Figure 1: Endoscopic view

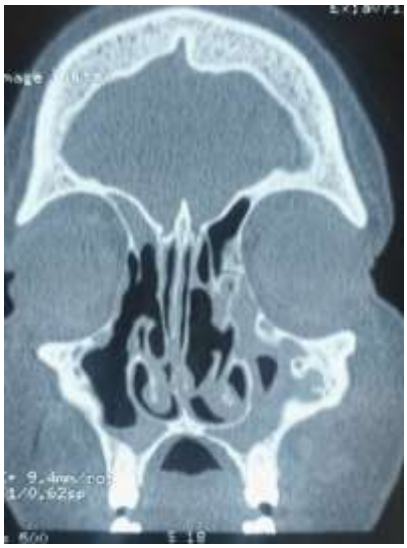

Figure 2: CT-Scan showing a giant concha bullosa

We proceeded to an endonasal surgery through general anesthesia in a goal to reduce the size of the middle turbinate. The technic consisted on a turbinectomy in the level of the ostium of the maxillary sinus in an horizontal plan after luxation of the middle turbinate in a goal to liberate the middle meatus. (Figure 3)

Figure 3: Surgical image showing the cut in the middle turbinate

Two months after the surgery, the nasal obstruction disappeared and the patient rebreathe normally. We have used local corticosteroid and nasal irrigations with saline serum after surgery.

DISCUSSION

Concha bullosa is one of the anatomic variations located that can affect the turbinates. Most of the time, it's the middle turbinate which is concerned. A case of a superior turbinate was reported [1].

Mostly, it's asymptomic, and no sign is reported. The patient can discover its anatomic variation through a radiologic exploration such as a CT-scan frequently. In an other hand the patient can report an unilateral permanent nasal obstruction, or an obstruction that is accentuated when a rhinosinusitis or an inflammatory nasal affection occurs. The affection is usually bilateral but sometimes, it can affect just one side, and it's reported with a pneumatized ethmoid structures [2].

The diagnosis rely on the CT-Scan evaluation, but in front of any nasal sign, the endoscopic examination is necessary. Through the endoscope, the diagnosis is pretty easy but not confirmed until the imaging is done. The middle turbinate can obstruct the hole cavity depending on the size and the pneumatization of the middle turbinate. This variations has been classified through different types. It can be divided in three types: lamellar, bulbous or total, involving both lamellar and bulbous segments of the middle turbinate [3].

A team from a hospital complex of Santiago de Compostela came upe with a new classification according to the axial extension of pneumatization of the middle turbinate. This classification contains six types and it has a surgical goal and to also prove that the concha bullosa is not related to rhinosinusitis [4].

There is no medical treatment. For symptomatic cases, the treatment is the surgery, there is two principal technics, lateral laminectomy with or without mucosal conservation and the crushing of middle turbinate. The lateral laminectomy seems to be more performant based on nasal obstruction evaluation than crushing [5].

CONCLUSION

Concha bullosa is an anatomic variation that usually is asymptomatic, most of the time it's diagnosed after a CT-Scan. When it's symptomatic, the main sign is nasal obstruction. The only treatment is surgery. Lateral laminectomy is performed through endoscope, and no additional treatment is needed after surgery.

REFERENCES

1. M.C. Rusu et Al Rare anatomic variation : Giant unilateral concha bullosa superior Morphologie vol 103 – N 341 P 59- 54- Mars 2019
2. David Neskey et Al Surgical management of nasal obstruction Otolaryngologic Clinics of North America 2009
3. Bell D et Al Concha bullosa Radiopedia, May 2008
4. Christian Calvo Herniquez et Al Concha Bullosa, a radiological study and a new classification. Acta Otorrinolaringologica Espanola Volume 70, Issue 3, May-June 2019, page 145 – 150
5. Mostafa Ismail et Al Surgical treatment of concha bullosa: A comparison of the short-term results of crushing and lateral laminectomy with and without mucosal preservation. Indian journal of Otolaryngology and head and neck surgery Volume 76, page 1949 – 1958, (2024).