

Case Report

# Botryomycoma of the Nasal Vestibule: A Case Report from the Commune VI Referral Health Center of the District of Bamako/Mali

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## Abstract

Pyogenic granuloma or botryomycoma or lobular capillary hemangioma is a benign proliferation of capillaries, precisely skin and mucous membranes. This pathology is considered rare in terms of nasal cavities. But cases are increasingly related to literature. Thus, this study concerns a case sitting at the level of the nasal vestibule. He is an adult of 58 years and male sex, who came for consultation in the ENT department at the commune VI reference health center of the district of Bamako / Mali, presenting as a reason for consultation a right nasal obstruction. The interrogation revealed that the start dates back to about eight months and marked by a serous rhinorrhea and an associated homolateral epistaxis of headaches. No predisposing factor and no medico-surgical history has been found. The scanner allowed us to define the contours of the mass and to guide the therapeutic decision. The mass was completely removed surgically into endonasal without incidence. Histological examination of the surgical sample concluded that a lobular capillary hemangioma. The patient was followed for 2 years without recurrence or complications. Because of its rarity in our context, we recommend particular attention to ENT specialists to avoid confusion and allow more studies for more discussions in the literature.

## Keywords

Botryomycoma, Nasal Cavity, ENT Department, Bamako/Mali

## 1. Introduction

Pyogenic granuloma or botryomycoma is a benign inflammatory tumor of skin and mucous membranes [1, 2]. Of various forms, this inflammatory hyperplasia inherits many

appointments more or less correctly reflecting its vascular origin [3].

In particular Botryomycoma, Crocker disease and Hartzell

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[4], lobulated hair hemangioma, telangiectasic granuloma among others CISMEF [5]. Described for the first time by Hullihen [6] in 1844 without affixing a name for it, Poncet & Dor 1897 [7] will attribute the term "botryomycoma" before Hartzell 1904 [4] called him "Granuloma Pyogenic". The denomination pyogenic granuloma is today the most commonly used in international literature, the name "botryomycoma" resulting from confusion with botryomyces (Mushroom for the castration of the horse) (Medical Dictionary of the Academy of Medicine) [8].

Pyogenic granuloma is a rare entity in the nasal cavity [9]. Very true that benign, this tumor turns out to be embarrassing. Thus, this is a case from the Ear, Nose and Throat (ENT) department of the Commune VI Referral Health Center of the District of Bamako/Mali.

#### Observation:

He is a 58 -year -old man, who consulted for a right nasal obstruction more homolateral epistaxis. The interrogation revealed that the beginning of the symptomatology dates back eight months marked by a minimal unilateral straight epistaxis of progressive appearance and intermittent evolution, associated a right nasal obstruction, headache, bilateral serous rhinorrhea; without dysosmia, neither dyspnea, nor dysphagia. The patient was without known medico-surgical history.

Physical examination of the nose revealed a large, soft, fleshy mass, bleeding on contact, completely obstructing the right nasal cavity. The left nasal cavity was unremarkable.

The rest of ENT exam was normal. Also examination of other devices was normal.



**Figure 1.** An endoscopy view of the right nasal pit showing the mass.

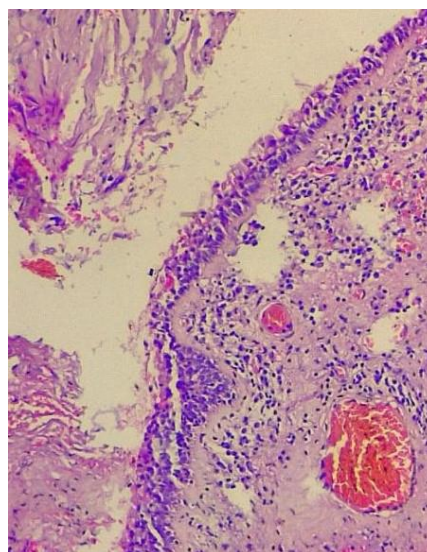
On the additional examination, the CT of the nasal cavities highlights, a tissue hypodensity filling the right nasal pit, repressing the anterior wall of the right maxilla, well limited updating after injection of contrast product.



**Figure 2.** Scenographic image of nasal cavities.

The management consisted of a surgical exemption from the mass in endo-ship and a biopsy of the operating room for the histological examination which made the diagnosis of a botryomycoma.

We followed the patient for 2 years without recurrence.



**Figure 3.** Histology showing botryomycome.

## 2. Discussion

The lobular hair hemangioma was designated through several terminologies, first described by Poncet and Dor in 1897 of "human botryomycosis", then Hartzell of "pyogenic granuloma" and Stacey Mills in 1980 of "lobular capillary haemangioma" after having proven that this pathology is neither pyogenic nor granulomatous based on distinct histological characteristics [9].

The epidemiology of pyogenic granuloma is the subject of many discussions in the literature, but the authors agree on the possibility of occurrence at any age of life. Precisely from birth to 88 years old have been reported [10-12]. However, it

is seen more often in children and young adults [13-14]. Here, this study joins the literature in terms of age 58 years. On the other hand, male sex predominates in the pediatric population while the feminine dominates the course of the third to the fourth decade of life [2, 13]. From over 40 years old, the men/women ratio is 1: 1 [15].

Trauma and pregnancy are the most common factors favouring the development of LCH [9]. Regarding nasal compaction, insect bites and the antecedent of nasal surgery have been mentioned as promoters in the literature. [9, 13, 16, 17]. But pathogenesis in this study has not been known. However, according to Nayak et al. [9], the pathogenic mechanism possible may be due to exaggerated inflammation following prolonged irritating traumatic foci.

Other pathogenic mechanisms that may be responsible for LCH include the production of angiogenic growth factors, arteriovenous malformations and the presence of viral oncogenes [9, 17, 18]. Pregnancy has been described as a determining factor in its occurrence in 2-5% [18], most frequently in the second and third trimesters, with spontaneous regression after labour [9, 13, 17, 18]. This is called granuloma of pregnancy or granuloma gravidarum or epulis gravidarum [2]. In addition, factors such as treatment with oral contraceptive pills and kidney transplantation have been associated in the occurrence of lesions. [2].

Certain variants of lobular hair hemangioma have been associated with the consumption of drugs in 30% of cases and others with keratolytic treatment combined with mechanical stripping on hyperkeratic lesions of the lower limbs [2, 14].

Depending on its location, it frequently appears on minor or mucous surfaces [2], and preferably on the extremities [14]. The LCH occurs in the Cervico-Facial region in 60% of cases [18]; precisely on the lip in 38% of cases, the 29% nose, the oral mucosa 18% and the language 15% [2]. It rarely occurs at the gastrointestinal tract [2].

In the oral cavity, the sites most frequently involved are the gingiva, buccal mucosa, tongue and lips [4, 16, 18]. The LCH inside the nose is a rare entity, reported for the first time in 1940 [18]. The most frequent sites are the anterior septum (Little zone), the point of the lower turbinate and the vestige [4, 16]. This study relates to the latter (the nasal vestibule), which constitutes a rare case among nasal localizations reported in the Anglo-Saxon literature [16].

The most frequent symptoms of the LCH are epistaxis, nasal obstruction and the salient character of the lesion of previous nostrils. And the signs on physical examination, the LCH appears roughly as a loner, rosé or reddish or bluish..., with rapid exophytic growth, in the shape of a pedunculated papule or very crumbly or warty nodule, with a surface that Ulcer often, from 0.5 cm to 2 cm [2, 13, 14, 16, 19, 20]. In this study experience, the mass was reddish, pedicled and bled on contact. Villon, C et al [14], on the other hand, found clinical distinctions in his observation through its atypical presentation, large size (15 cm) resembling minced steak, atypical location (leg), multilobularity, bilaterality and age of onset 75

years.

A CT scan of the nasal cavity was performed to define the contours of the mass, and pathological examination confirmed the diagnosis of botryomycoma. Ifeacho SN et al [13] also performed an Magnetic Resonance Imaging (MRI) scan to exclude the diagnosis of juvenile nasopharyngeal angiofibroma. This examination is difficult to access in our context. The author emphasizes the crucial role of CT imaging in identifying non-specific features of the mass, such as soft tissue density, bone destruction or structural invasion [13].

Several management modalities are available, including electrocoagulation, cryotherapy, surgery, silver nitrate, laser, dermocorticoids and topical beta-blockers [20]. However, the authors agree that the base of the tumour should be excised under endoscopic electrodesion [4, 9, 13, 21]. Embolization was beneficial in certain situations [18]. The curettage, cauterization and cryotherapy of silver nitrates are other methods used with lower success rates [21]. The new experienced treatments include the use of laser, sclerotic agents and the alitretinoin gel [18, 21]. In This study, endonasal excision was performed. Soukaina K. [20] associated electrocoagulation of the base. On the other hand, Villon, C. et al [14] used dermocorticoid treatment, which led to a regression of the hyperburdening and a clear di-minution of the plaques on the lower limbs.

None of the authors cited recurrence in their study. LCH recurrence is rare in the literature. It accounts for around 16% of cases [4]. Ifeacho SN et al [13], indicate that recurrence generally occurs in cases of incomplete excision, and that there are forms that spontaneously give rise to recurrence: Warner-Wilson-Jones syndrome or recurrent pyogenic granuloma. The patient in this study was followed for 02 years without recurrence.

### 3. Conclusion

Botryomycoma is a benign tumour. Histological examination of the surgical specimen is the key to diagnosis, and preferably treatment is the complete excision of the mass by electrodiastication under endoscopy. Although in nasal cavities this condition is rare, cases are increasingly being reported in the literature. We recommend that ENT specialists pay particular attention to avoid any confusion and allow further study for further discussion in the literature.

### Abbreviations

ENT	Ear Nose Throat
LCH	Lobular Capillary Hemangioma
MRI	Magnetic Resonance Imaging

### Author Contributions

**Mohamed Saydi Ag Mohamed Elmehdi Elansari:**

Methodology, Project administration

**Mariam Sangare:** Conceptualization, Data curation, Funding acquisition, Investigation, Supervision

**Moussa Keita:** Data curation, Writing – original draft

**Lassana Keita:** Writing – review & editing

**Lassine Dienta:** Investigation

**Mamadou Ouattara:** Investigation

**Diaffe Drame:** Investigation

**Fatogoma Issa Kone:** Conceptualization, Supervision, Validation

## Conflicts of Interest

The authors declare no conflicts of interest.

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