

Gravid Nasal Mass

Gebede Nazal Kitle

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ABSTRACT

Pyogenic granuloma is a benign lesion of the mucous membrane and skin which commonly occurs in the oral cavity. Nasal cavity involvement is considered to be rare. Albeit uncommon, it has been linked with pregnancy, trauma and usage of oral contraception. Herein, we would like to report a rare case of pyogenic granuloma of the nasal septum in a pregnant female. We would like to highlight the presentation and management of this case in a pregnant patient. Pyogenic granuloma may be overlooked following its rarity and we would like to emphasize that management ought to be individualized. This case is to emphasize importance of awareness of Pyogenic granuloma of the nasal cavity in pregnancy as it is oftentimes misdiagnosed as malignancy.

Key Words: Nasal tumour; pregnancy; pyogenic granuloma; capillary hemangioma, lobular

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ÖZET

Piyojenik granülom, ağız boşluğunda yaygın olarak görülen mukoza ve cildin iyi huylu bir lezyondur. Burun boşluğu tutulumu nadir olarak kabul edilir. Nadiren de olsa, gebelik, travma ve oral kontrasepsiyon kullanımı ile bağlantılıdır. Burada, gebe bir kadında nazal septumun nadir görülen bir piyojenik granülom olgusunu bildirmek istiyoruz. Hamile bir hastada bu vakanın sunumunu ve yönetimini vurgulamak istiyoruz. Piyojenik granülom nadir görülmesinin ardından gözden kaçabilir ve yönetimin bireyselleştirilmesi gerektiğini vurgulamak isteriz. Bu olgu gebelikte sıklıkla yanlış tanı konulduğu için gebelikte burun boşluğundaki Piyojenik granülom farkındalığının önemini vurgulamak içindir.

Anahtar Sözcükler: Nazal tümör; gebelik; piyojenik granülom; kılcal hemanjiyom, lobüller

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INTRODUCTION

Pyogenic granuloma (PG) is a benign, rapidly growing capillary proliferation, commonly solitary which affects skin and mucous membrane with an unknown etiology. It first described in 1897 by Poncet and Dor as human botryomycosis(1). The term PG was created by Hartzell in 1904 and is a misnomer as the tumour is neither granulomatous nor infectious(2,3). Hence, Miller coined the term lobular capillary hemangioma based on its histological characteristics(3). These, mass are characterized by lobular arrangements of different sizes along with anastomosing network capillaries(4). Hence, pyogenic granuloma ought to be considered as a differential diagnosis in a nasal mass which occurs during pregnancy. It has been linked with pregnancy, oral contraceptive and trauma.

CASE REPORT

A pregnant 35-year-old lady in her 2nd trimester was referred to us for recurrent right-sided intermittent epistaxis for 2 weeks. According to patient, epistaxis occurs daily, is spontaneous, painless, minimal amount and stops spontaneously. Besides that, patient also complains of right-sided nasal obstruction, progressively worsening. There was however no recurrent nasal symptoms prior to this, no history of fall or trauma or any other bleeding tendency. Patient has no facial tenderness, swelling and no ocular or ear symptoms.

Upon examination, patient is comfortable, not pale-looking and not tachypnoic. No external nose or facial swelling were noted. Upon anterior rhinoscopy, reddish mass was seen occupying entire right nasal cavity with no active bleeding. Rigid nasoendoscopy was done which further revealed a reddish mass, non-pulsatile originating from the nasal septum. (Figure 1) Upon probing the mass was firm and bleed upon touch. Beyond the mass, there was no other mass seen, no septal perforation was noted, osteomeatal complex and nasopharynx were clear. Scope done on the left side revealed no abnormality.



Figure 1 Rigid nasoendoscopy revealing a reddish mass, non-pulsatile originating from the nasal septum

Apart from that, intraoral and otoscopic examination was normal. Systemic examination was unremarkable. No cervical lymph nodes were palpable. Full blood count along with coagulation profile done was within the normal range. Patient was counselled for excision of the septal mass under local anesthesia. Intraoperatively, a lobulated reddish mass was excised using cautery from septal mass. It had a pedicle around 0.5cm base at the anterior septum. There was no septal perforation or profuse bleeding noted. Post-operatively patient was well with no active complaints.

Histopathological examination of the septal mass sent revealed mass lined by stratified squamous epithelium with varying size of capillaries lined by plump endothelial cells arranged in lobular and cluster arrangement with central dilated capillaries suggestive of pyogenic granuloma(Figure 2,3). The covering epidermis is thin with variable ulceration.

Upon subsequent review, patient was well, excised site was well healed with no evidence of recurrence. Patient was reassured and was discharge from our follow-up.

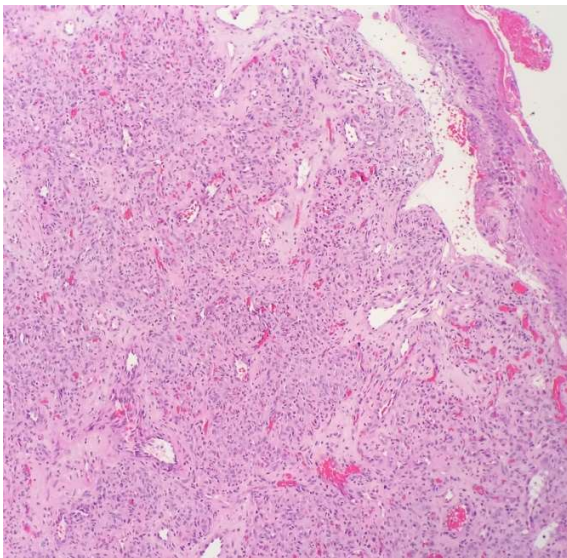


Figure 2.

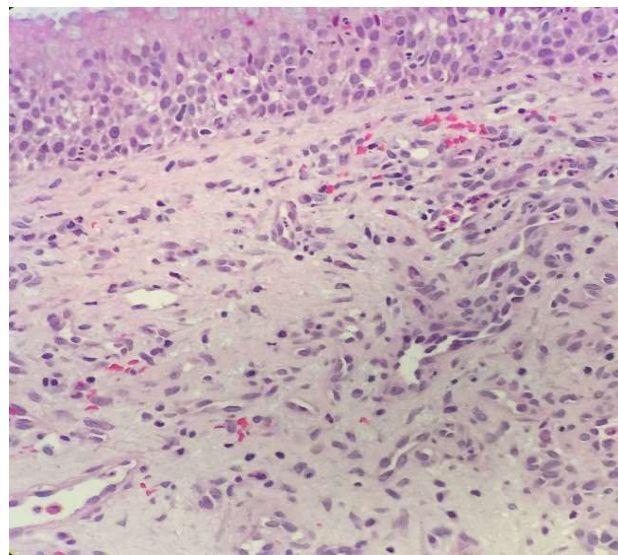


Figure 3.

DISCUSSION

PG are found in all age groups but predominantly seen in the 3rd decade of life with female preponderance. (5) Our patient discussed is female in her 4th decade of life. Amongst the children however, male predominance was reported.

Albeit unknown, myriad factors have been linked with the aetiologic factor leading to PG including pregnancy, trauma, oral contraceptive, foreign body and nose piercing. Occurrence of PG during pregnancy is believed to be attributed by the huge increase in blood volume which occurs during pregnancy along with hormonal influences of estrogen and progesterone leading to massive increase in vascularization. In addition to that, female sex hormones are believed to increase the expression of angiogenic factors including basic fibroblastic growth factor (bFGF) along with vascular endothelial growth factor (VEGF). During pregnancy, reported cases were found to be between 2 to 5%. (6) Gradual increase in the number of cases were observed especially in the late gestation parallel to the hormone levels that rises and the tumours were believed to regress after delivery as the hormone levels declines after birth.

PG is typically found in the oral cavity notably the gingiva. Nasal cavity involvement is within 7-10 % and nasal septal mucosa and anterior end of the inferior turbinate being the most common site.

As for its presentation, patient complains of unilateral epistaxis, nasal obstruction, protruding mass, epiphora and also dysosmia. Albeit a benign mass, it's locally aggressive nature may mimic malignancy which may be worrisome and cause anxiety to patients, more so amongst the pregnant patients.

Although countless cases have been reported on its spontaneous involution, treatment should be tailored according to presentation especially if the mass is causing significant obstruction. Endoscopic surgical excision is the treatment option in symptomatic patients as in our case. However, inadequate excision may lead to recurrence in about 16-23% of cases. (7) Besides surgical excision, other options such as silver nitrate, cryotherapy, electrodesiccation and laser therapy can be utilized in managing this tumour. Comparatively, in a painless, small lesion, expectant management is advocated owing to the possibility of resolution, risk of intraoperative bleeding and recurrence risk. (8)

Differential diagnosis of vascular lesion of the nasal cavity includes venous hemangioma, hemangiomaendothelioma, angiomatous glomus tumour, lymphangioma, angiofibroma, hemangiopericytoma, hemangiosarcoma and metastatic malignancy.

Diagnosis of PG can only be made based on histopathological examination of the excised mass. Typical histological features of PG is submucosal vascular proliferation arranged in lobules or clusters composed of central capillaries and smaller ramifying tributaries with no evidence of cytological atypia. (9) Inflammatory cells infiltrate and stromal oedema are usually present. Thin covering epidermis with variable ulceration are also observed.

Complications of PG among others are cosmetic disfigurement, haemorrhage, ulceration and infection. Till date, no malignant transformation has been documented.

CONCLUSION

Pyogenic granuloma is an acquired benign and rare nasal tumour which occurs during pregnancy. This condition ought to be considered a differential diagnosis in a pregnant patient and treatment should be tailored according to patient's symptoms and presentation. Thus, it is prudent especially for all physicians notably the obstetrician and the otorhinolaryngologist to be aware of this condition as overzealous treatment may be devastating and unwarranted.

Conflict of interest

No conflict of interest was declared by the authors.

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