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Clinical case report

Lingual telangiectatic granuloma in a postpartum patient

Granuloma telangiectásico lingual en paciente puérpera

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ABSTRACT

Telangiectatic granuloma is a benign hyperplastic lesion affecting skin and mucosa, prevalent in pregnant women. The current report is a case of a 23-year-old postpartum patient who presented with a 4 cm tumor lesion on the tongue tip, soft consistency, and pedunculated base, interfering with speech and feeding. Surgical excision was performed under local anesthesia. Histopathological analysis confirmed telangiectatic granuloma, showing capillary vessel neoformation and inflammatory cells. Follow-up revealed adequate healing without recurrence after two months, demonstrating the effectiveness of surgical treatment.

Keywords: Pyogenic granuloma; Tongue; Pregnancy; Biopsy; Oral surgery.

RESUMEN

El granuloma telangiectásico es una lesión hiperplásica benigna en piel y mucosas, prevalente en mujeres embarazadas. Se presenta el caso de una paciente de 23 años en puerperio, con lesión tumoral de 4 cm en la punta lingual, de consistencia blanda y base pediculada, que interfería con fonación y alimentación. Se realizó escisión quirúrgica bajo anestesia local. El análisis histopatológico confirmó granuloma telangiectásico, mostrando neoformación de vasos capilares y células inflamatorias. El seguimiento reveló cicatrización adecuada sin recurrencia a los dos meses, demostrando la efectividad del tratamiento quirúrgico.

Palabras clave: granuloma piogénico; lengua; embarazo; biopsia; cirugía bucal.

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INTRODUCTION

Telangiectatic granuloma is a benign hyperplastic lesion affecting skin and mucous membranes, characterized by significant proliferation of connective tissue and blood vessels.[1,2] Its relevance in dental practice lies in its frequent presentation and potential impact on patient quality of life. Understanding its clinical behavior and management is essential for the differential diagnosis of oral lesions.[3]

The etiology is multifactorial, primarily associated with repeated trauma, local irritations, biofilm accumulation, dental calculus, poorly adapted restorations, prostheses, orthodontics, occlusal trauma, hormonal factors, and certain medications.[3,4] The pathogenesis involves excessive proliferation of osteoclasts and macrophages, which can lead to local bone resorption.[2] This exaggerated tissue response suggests an alteration in standard repair mechanisms.

Epidemiologically, it represents 37% of reactive hyperplastic lesions in the oral cavity, with a marked female predilection in a 5:1 ratio.[3] Its prevalence is particularly significant during pregnancy, affecting approximately 2% of pregnant women during the first five months, relating to elevated levels of estrogen and progesterone.[5,6]

Histopathological findings are distinctive, showing highly organized vascular proliferation in lobular aggregates. Vascular channels, lined by endothelial cells, present an inflammatory infiltrate, including neutrophils, lymphocytes, and plasma cells, along with abundant osteoclast-type multinucleated giant cells.[2,5]

Significant knowledge gaps exist regarding recurrence predictors and comparative effectiveness among available therapeutic modalities. Longitudinal studies are needed to establish evidence-based treatment protocols.[7,8]

Therapeutic management varies according to size and clinical presentation. In small lesions, it is recommended to identify and eliminate causal factors with clinical follow-up. For extensive lesions, conservative surgical excision with a 2mm margin is the treatment of choice, although there is a risk of recurrence.[8,9] Alternatives such as cryotherapy, intralesional steroids, and laser require more evidence of their long-term effectiveness.

This study provides clinical evidence on surgical approach and postoperative follow-up, with direct implications for early diagnosis and effective management in clinical practice. The findings contribute to informed decision-making in treating these lesions, especially in high-risk populations such as pregnant women.

This report aims to analyze a case of oral telangiectatic granuloma, from diagnosis to resolution, emphasizing clinical presentation, surgical management, and postoperative evolution to provide evidence guiding the clinical approach to these lesions.

CASE REPORT

The case is a female patient, 23 years old, from an urban area, presented with a tumoral lesion on the tip of the tongue measuring approximately 4.0 cm in diameter. The lesion was consistently soft, with a pedunculated base, crater-like surface, and spontaneous bleeding. It was symptomatic and interfered with essential functions such as speech and feeding, with a two-month evolution (Figure 1A, 1B). As per relevant medical history, the patient was in the postpartum and lactation period. The lesion began in the eighth month of pregnancy, starting small and rapidly increasing in size. The patient should have sought consultation earlier, waiting until after childbirth. Based on the history and clinical findings, a diagnosis of oral telangiectatic granuloma was established. Surgical excision was indicated as the treatment plan.

The surgical procedure was explained to the patient before treatment, and informed consent was obtained. For surgical excision, perilesional anesthesia was administered using 2% lidocaine with 1:800,000 epinephrine. The lesion was then removed through excisional biopsy with safety margins, making an incision at the base of the lesion using a No. 15 scalpel blade and Bard-Parker No. 3 handle. Following lesion removal, hemostasis was achieved, and the site was sutured with 4.0 silk using a simple interrupted technique. Postoperative care included antibiotic treatment with cefradine 500 mg, one capsule every 6 hours for 6 days, and analgesic therapy with acetaminophen 500mg, one tablet every 6 hours. The excised specimen measured 4 cm in diameter, had a pink-yellowish color with multiple bleeding fissures and a crater-like appearance, was stored in 10% formalin, and sent for histopathological analysis (Figure 1C).

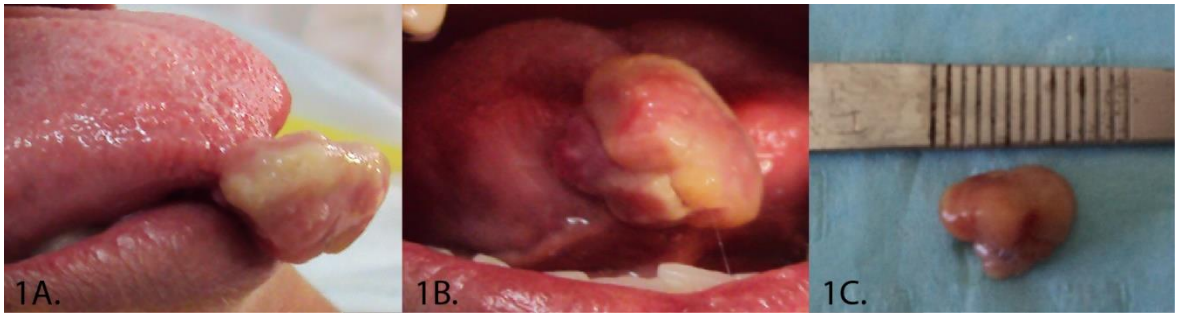

Figure 1. Clinical and Surgical Images of Oral Telangiectatic Granuloma. 1A. Lateral view shows an exophytic tumoral lesion with a pedunculated base, bleeding tendency, and crater-like surface. The lesion measures approximately 5 cm in diameter and exhibits a pink-yellowish coloration. 1B. Anterior view of the tumoral lesion on the tongue tip significantly impaired essential functions, including speech, mastication, and swallowing. 1C. Excised specimen sent for histopathological examination.

Anatomopathological report

Microscopic examination revealed a lesion composed of stroma with neovascularization showing prominent endothelial capillaries, accompanied by inflammatory cells, including lymphocytes, polymorphonuclear neutrophils, and eosinophils. The lesion was covered by hyperkeratotic squamous epithelium (Figure 2A), consistent with telangiectatic granuloma and negative for malignancy.

Eight days after the procedure, postoperative follow-up showed good soft tissue healing (Figure 2B). At two months post-surgery, no recurrence was observed.

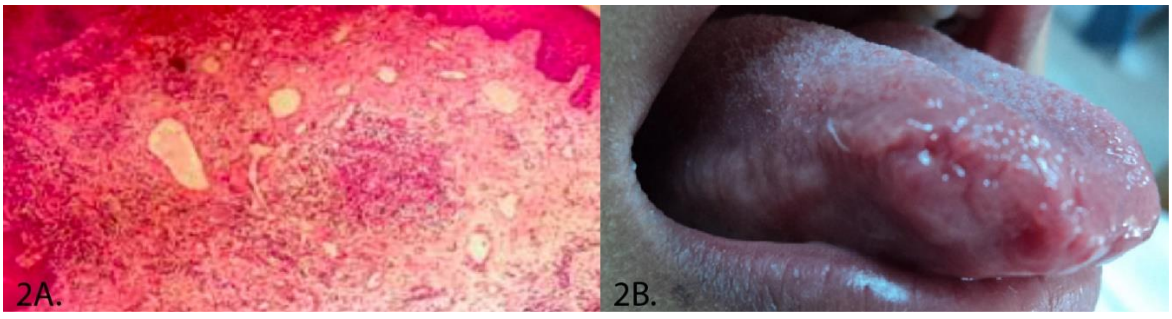

Figure 2. Histological and Post-Surgical Images. 2A. Histological section: Lesion composed of stroma with neovascularization showing prominent endothelial capillaries, accompanied by inflammatory infiltrate including lymphocytes, polymorphonuclear neutrophils, and eosinophils. The lesion is covered by hyperkeratotic squamous epithelium. 2B. Eight-day post-surgical follow-up showing healing progression.

Ethical statement

Data collection and management maintained participant anonymity, and informed consent was obtained from all participants.

DISCUSSION

This case reports an oral telangiectatic granuloma (OTG) with an unusual location at the tip of the tongue in a 23-year-old pregnant patient. The lesion, which developed during the eighth month of pregnancy, presented typical clinical characteristics: pedunculated base, crater-like surface, and spontaneous bleeding. The diagnosis was confirmed through histopathological analysis post-surgical excision, revealing vascular neoplasia and inflammatory cells. A two-month follow-up showed adequate healing without recurrence.

Our findings differ from previous studies regarding location. While Al-Khateeb and Ababneh reported 44.4% of cases in the gingiva and only 13.8% in the tongue,[10] Saravana et al. found 83% of lesions in the maxillary gingiva.[11] This divergence could be explained by gestational hormonal influence, which, according to Betin Portación, increases blood flow and vascularization,[12,13] potentially altering the typical manifestation of the lesion.

The practical implications of this case include the importance of differential diagnosis in lingual lesions during pregnancy and the effectiveness of a conservative surgical approach. This approach is particularly relevant for primary oral healthcare in pregnant women.

The study's main strength is documenting an atypical presentation of OTG, contributing to the literature on clinical variants in pregnant populations. The successful post-surgical follow-up provides evidence supporting the effectiveness of surgical treatment in these situations.[14,15]

Limitations include the short follow-up period and the inability to establish a definitive causal relationship between pregnancy and the unusual location of the lesion. Longitudinal studies are needed to evaluate predictive factors for recurrence in similar cases.[16]

CONCLUSIONS

The presented case illustrates the occurrence of a telangiectatic granuloma on the tongue of a pregnant patient. The surgical intervention, performed with a careful approach and appropriate techniques, enabled a definitive diagnosis and successful removal of the lesion. Histopathological findings confirmed the benign nature of the lesion, emphasizing the importance of histological evaluation for the diagnosis of similar lesions in the oral cavity. Postoperative monitoring showed adequate healing without recurrence, suggesting that surgical excision can effectively manage these conditions. This case reinforces the need to consider benign vascular lesions in the differential diagnosis of oral mucosal alterations and the relevance of biopsy as an essential tool in clinical practice.

CONFLICTS OF INTEREST STATEMENT

The authors declare no conflicts of interest.

AUTHORS' CONTRIBUTIONS

STS contributed to concept development, surgical procedure performance, results analysis, manuscript revision, and final version approval.
MRC contributed to concept development, surgical procedure performance, results analysis, manuscript revision, and final version approval.
JPR participated in results analysis, manuscript revision, and final version approval.

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