

Oral Hemorrhagic Lesion Mimicking Melanoma: A Case Report of Severe Thrombocytopenia with Suspected Immune Thrombocytopenic Purpura

Satyam Kukar, Hasti Kankariya, Shrey Srivastava, Srenwentu Chakraborty

Department Oral and Maxillofacial Surgery k.d Dental College Mathura, India.

Abstract

Oral pigmented and hemorrhagic lesions frequently pose a diagnostic challenge because of their broad differential diagnosis, including benign, vascular, hematological, and malignant conditions. Oral melanoma, although uncommon, remains a clinically significant concern owing to its aggressive nature and poor prognosis. Conversely, hematological disorders such as immune thrombocytopenic purpura (ITP) may present with hemorrhagic lesions that resemble pigmented neoplasms. We report the case of a 22-year-old male presenting with a sudden-onset dark intraoral swelling involving the posterior buccal mucosa. Clinical examination initially raised suspicion of an oral pigmented lesion, including melanoma in the differential diagnosis. Hematological investigations demonstrated severe thrombocytopenia with a platelet count of $12 \times 10^9/L$, neutrophilic leukocytosis, and peripheral smear findings suggestive of marked thrombocytopenia. Correlation of clinical and laboratory findings favored a diagnosis of severe thrombocytopenia with oral hemorrhagic manifestation, clinically consistent with suspected immune thrombocytopenic purpura. The patient was managed conservatively with corticosteroid and supportive therapy, resulting in gradual regression of the lesion. This case emphasizes the importance of thorough systemic evaluation and hematological assessment before undertaking invasive procedures in patients presenting with oral hemorrhagic or pigmented lesions.

Keywords: Case Report, Oral Hemorrhagic Lesion, Melanoma

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Introduction

Oral pigmented lesions encompass a wide spectrum of pathological entities ranging from physiological pigmentation to potentially life-threatening malignancies such as oral melanoma [1]. Because oral melanoma carries an unfavorable prognosis and frequently presents at advanced stages, prompt recognition and appropriate diagnostic evaluation are essential [2].

However, not all dark intraoral lesions represent melanocytic pathology. Hemorrhagic lesions associated with systemic hematological disorders may closely mimic pigmented lesions and create considerable diagnostic uncertainty. Immune thrombocytopenic purpura (ITP) is an acquired autoimmune disorder characterized by isolated thrombocytopenia secondary to immune-mediated platelet destruction and impaired platelet production [3]. Patients commonly present with mucocutaneous bleeding

manifestations including petechiae, ecchymosis, gingival bleeding, and hemorrhagic bullae [4].

Oral manifestations may occasionally constitute the first indication of an underlying hematological disorder [6]. Recognition of these lesions by dental practitioners is therefore critical in preventing delayed diagnosis and avoiding potentially hazardous invasive procedures.

Case Presentation

A 22-year-old male presented with a chief complaint of a dark-colored swelling inside the oral cavity of recent onset. The patient reported no history of local trauma, previous similar lesions, or known systemic illness (Figure 1).

Corresponding Author:

Dr. Srenwentu Chakraborty

Department Oral and Maxillofacial Surgery k.d Dental College Mathura, India.

Email: srenwentuchakraborty@gmail.com

Clinical Examination

Intraoral examination revealed a solitary, localized, bluish-black raised lesion involving the posterior buccal mucosa adjacent to the molar region. The lesion appeared soft, hemorrhagic, and non-indurated, with a blood-filled appearance and surrounding mucosa showing no obvious ulcerative changes.

Owing to its dark pigmentation and localized presentation, oral melanoma was considered among the provisional differential diagnoses. However, the soft consistency, apparent hemorrhagic nature, and sudden onset suggested the possibility of a vascular or hematological lesion.

Investigations

To evaluate possible systemic involvement, complete hematological investigations were advised.

Complete blood count revealed:

- Hemoglobin: 14.9 g/dL
- Platelet count: $12 \times 10^9/L$
- Total leukocyte count: $13.2 \times 10^9/L$

Peripheral smear examination demonstrated:

- Normocytic normochromic red blood cells
- Neutrophilic leukocytosis
- Marked thrombocytopenia

The hematological profile suggested a systemic bleeding disorder rather than a primary melanocytic lesion (supplementary file).

Diagnosis

Based on clinical presentation and hematological correlation, a diagnosis of severe thrombocytopenia presenting as an oral hemorrhagic lesion was established, clinically consistent with suspected immune thrombocytopenic purpura.

Treatment

The patient was managed conservatively with corticosteroid and supportive therapy including:

- Medrol (methylprednisolone)
- Carica papaya leaf extract 1100 mg
- Liverhelp syrup
- A to Z multivitamin tablets
- Plato Chem syrup
- Zym-C tablets

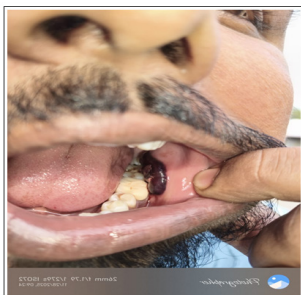


Figure 1. Intraoral Clinical Photograph Showing A Bluish-Black Hemorrhagic Lesion Involving The Posterior Buccal Mucosa Adjacent To The Molar Region.

The patient demonstrated gradual clinical improvement with reduction in lesion size and symptomatic recovery during follow-up. Periodic monitoring of platelet levels and medical follow-up were advised.

Outcome and Follow-Up

The patient showed gradual clinical improvement with reduction in lesion size. Follow-up evaluation was advised to monitor platelet levels and ensure systemic recovery.

Discussion

Immune thrombocytopenic purpura is characterized by immune-mediated platelet destruction leading to thrombocytopenia and increased bleeding tendency [3]. Oral manifestations frequently represent early clinical findings and may include petechiae, ecchymoses, gingival bleeding, and hemorrhagic bullae [4].

The present case is noteworthy because the lesion clinically resembled oral melanoma due to its dark bluish-black appearance. Such resemblance may lead to unnecessary concern and potentially hazardous invasive procedures if systemic causes are not adequately investigated [2].

Importantly, biopsy of lesions associated with profound thrombocytopenia may precipitate significant bleeding complications [5]. Therefore, hematological investigation played a decisive role in establishing diagnosis and preventing avoidable invasive intervention.

This case reinforces the diagnostic role of dental professionals in identifying systemic disease through oral manifestations [6, 7]. Recent epidemiological evidence from school-based studies in India highlights the significant burden of tobacco and arecanut use among adolescents and its association with early oral mucosal changes. Chakraborty et al. reported a notable prevalence of tobacco and arecanut consumption among school-going children, with a spectrum of oral mucosal lesions ranging from benign to potentially malignant disorders. Furthermore, behavioral determinants such as peer pressure have been identified as key drivers for early initiation of these habits, emphasizing the role of psychosocial factors in shaping oral health risks [8, 9].

In addition, cognitive exposure to tobacco marketing and limited awareness of preventive health messages among adolescents further increases vulnerability to oral lesions at an early age. Although the present case represents a hematological etiology mimicking a pigmented lesion, these findings underscore the broader clinical reality that oral lesions in young individuals may arise from diverse causes, including habit-related, systemic, and hematological factors. Therefore, a comprehensive diagnostic approach integrating clinical examination, detailed history (including habit assessment), and appropriate investigations remains essential for accurate diagnosis and management [8, 9].

These observations reinforce the critical role of dental practitioners not only in identifying systemic conditions, as demonstrated in the present case, but also in early detection and prevention of habit-associated oral diseases

in the community [10].

In conclusion, Oral hemorrhagic lesions may clinically mimic pigmented malignancies and create significant diagnostic challenges. This case underscores the importance of comprehensive clinical examination and hematological assessment in patients presenting with suspicious oral pigmentation. Early recognition of thrombocytopenia-associated oral lesions can facilitate timely medical management, prevent unnecessary invasive procedures, and improve patient safety.

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Statement of Transparency and Principles

- The authors declare no conflict of interest.
- The study was approved by the Research Ethics Committee of the authors' affiliated institution.
- The study data are available upon reasonable request.
- All authors contributed to the implementation of this research.

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