



Images in Clinical Hematology

Gingival swelling associated with hypoplasminogenemia



Eric T. Stoopler*, Faizan Alawi

University of Pennsylvania, School of Dental Medicine, Philadelphia, United States

ARTICLE INFO

Article history:

Received 24 March 2016

Accepted 14 April 2016

Available online 3 May 2016

A middle-aged woman presented for evaluation of gingival swelling. She was previously diagnosed with hypoplasminogenemia and current plasminogen level was 29% (reference value: 78–130%). Intraoral examination revealed swelling of the right maxillary gingiva (Figure 1). Biopsy with routine histopathologic analysis revealed fibrinoid deposits and a mixed inflammatory infiltrate within the lamina propria, consistent with hypoplasminogenemia (Figure 2).

Hypoplasminogenemia (type 1 plasminogen deficiency) is commonly associated with ligneous conjunctivitis and ligneous gingivitis.¹⁻³ An oral mucosal biopsy can aid in the diagnosis of this rare condition as histopathologic evidence of fibrin deposition is highly suggestive of hypoplasminogenemia.^{2,3}



Figure 1 – Swelling of the right anterior maxillary gingiva.

* Corresponding author at: Department of Oral Medicine, University of Pennsylvania School of Dental Medicine, 240 South 40th Street, Philadelphia, PA 19104, USA.

E-mail address: ets@upenn.edu (E.T. Stoopler).

<http://dx.doi.org/10.1016/j.bjhh.2016.04.006>

1516-8484/© 2016 Associação Brasileira de Hematologia, Hemoterapia e Terapia Celular. Published by Elsevier Editora Ltda. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

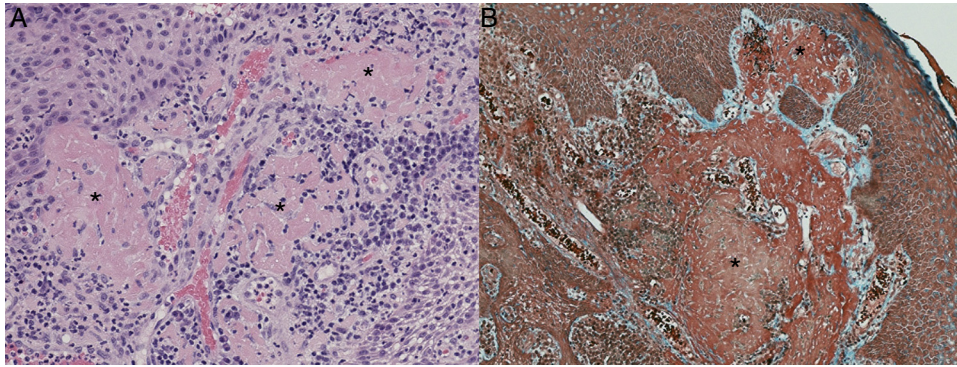


Figure 2 – Amorphous fibrinoid deposits (*) in the gingival lamina propria. (A) Hematoxylin–eosin (magnification $\times 100$), (B) trichrome (magnification $\times 40$).

Conflicts of interest

The authors declare no conflicts of interest.

Acknowledgements

The authors thank Dr. Sophia Elmuradi for assistance with clinical photography.

REFERENCES

1. Schuster V, Hugle B, Tefs K. Plasminogen deficiency. *J Thromb Haemost.* 2007;5(12):2315–22.
2. Scully C, Gokbuget AY, Allen C, Bagan JV, Efeoglu A, Erseven G, et al. Oral lesions indicative of plasminogen deficiency (hypoplasminogenemia). *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2001;91(3):334–7.
3. Scully C, Gokbuget A, Kurtulus I. Hypoplasminogenaemia, gingival swelling and ulceration. *Oral Dis.* 2007;13(6):515–8.