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CASE REPORT

Aplastic anemia presenting as bleeding of gingiva: Case report and dental considerations

Arpita Rai [a,*], Vanita Vaishali [b], Venkatesh G. Naikmasur [c,1], Ansul Kumar [d], Atul Sattur [c]

[a] Department of Oral Medicine and Radiology, Faculty of Dentistry, Jamia Millia Islamia, New Delhi 110025, India
[b] College of Dental Sciences and Hospital, Indore, India
[c] Department of Oral Medicine and Radiology, S.D.M. College of Dental Sciences & Hospital, Dharwad, Karnataka 580 009, India
[d] Dr. RML PGIMER Hospital, New Delhi, India

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Abstract The article describes a case of aplastic anemia in a 44-year-old male patient which presented as spontaneous bleeding of gums. Though bleeding of gums is a very common complaint encountered in a dental clinic, bleeding of gums due to systemic causes is an infrequent finding. Patient from blood dyscrasias may present in a dental office with bleeding of gums as sole or the first complaint. The acknowledgment of the patients underlying condition is the responsibility of the dentist for pertinent referral and further management.

1. Introduction

Aplastic anemia is a serious and often fatal hematologic disorder characterized by hypoplastic bone marrow and peripheral pancytopenia. Aplastic anemia is a rare, non contagious and potentially life threatening disorder caused by destruction of pluripotent stem cells in the bone marrow with an annual incidence of 2 to 6/1,000,000.[1] In contrast to the term 'aplastic anemia', suggesting suppression of erythropoietic cell lines, all cell lines may be affected in this disorder.[2] Depending on affected cell lines, aplastic anemia is associated with not only fatigue, but also bleeding due to thrombocytopenia and recurrent infections due to neutropenia.[3] The diagnosis 'aplastic anemia' is confirmed by hypocellularity of the bone marrow. The remaining cells are morphologically unaffected without malignant infiltration.

Aplastic anemia is classified as acquired or congenital. The congenital type is rare and usually associated with Fanconi's anemia and dyskeratosis congenita.[4] In more than 50% of the acquired cases of aplastic anemia, the cause is unknown. Potential triggers for the onset of aplastic anemia include T-cell mediated auto-immune disease, iatrogenic agents, viral infection and pregnancy.[1] This notion is supported by the similar incidence of aplastic anemia in men and women.[1] It

* Corresponding author. Tel.: +91 8802536376.
E-mail addresses: arpitadoc@gmail.com (A. Rai), drvnmasur@gmail.com (V.G. Naikmasur), docansul@gmail.com (A. Kumar).
[1] Fax: +91 8362467612.
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is more common in Asian countries than in the United States and Europe with about 6000–7000 new diagnosis reported annually worldwide. It can appear at any age but is most commonly diagnosed in children aged 2–5 years, young adults between 20 and 25 years and adults aged 55–60 years.[5]

A wide array of disorders of red cells and hemostasis encountered in internal medicine has manifestations in the oral cavity and the facial region. These manifestations must be properly recognized if the patient must receive appropriate diagnosis and referral for treatment. Though bleeding of gums is a very common complaint encountered in a dental clinic, bleeding of gums due to systemic causes is an infrequent finding. Patients from blood dyscrasias may present in a dental office with bleeding of gums as the sole or the first complaint. Acknowledgment of the patients underlying condition is the responsibility of the dentist for pertinent referral and further management.

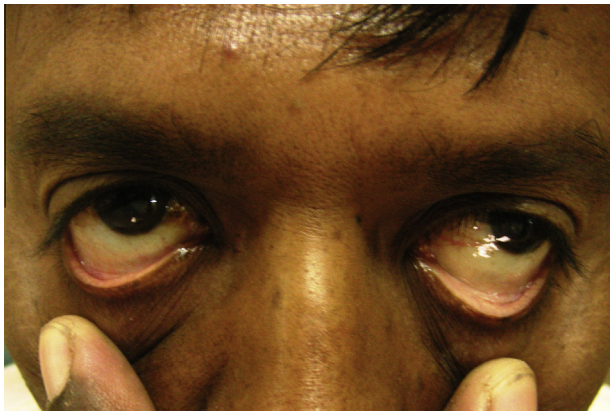

Figure 1 Clinical photograph of the patient showing extreme pallor of lower palpebral conjunctiva.

2. Case report

A 44-year-old patient reported to the Department of Oral Medicine and Radiology with complaints of bleeding of gums for the duration of 1 month. Bleeding of gums was spontaneous and continuous. Greater frequency of bleeding was noticed in the early mornings. Bleeding occurred from all quadrants of the mouth and the patient reported that about one cup of blood per day was oozing from the gums. The patient reported a negative history of rectal bleeding, hemoptysis or hematemesis. The patient had visited a local physician 20 days back and had been prescribed antibiotics (metronidazole, albendazole), vitamin C supplement and a multivitamin. He also gave a history of acid peptic disease for the past 25 years. Patient reported a history of easy bruising and reported ecchymosis and petechiae on arms, legs and buttocks. On examination, extreme pallor of lower palpebral conjunctiva (Fig. 1), nail beds (Fig. 2) and palms was evident. Ecchymotic patches were present on the left lower limb, right arm and dorsogluteal region bilaterally. Intra oral examination revealed generalized pallor of the oral mucosa. There was presence of multiple hematomas on the oral mucosa, one on the right buccal mucosa (Fig. 3), two on the left buccal mucosa and two on the upper labial mucosa (Fig. 4). The hematomas were bluish red, approximately 2–3 mm in size and non-tender. The tongue showed pallor and three hematomas were present on the dorsal surface (Fig. 5). Pallor of hard and soft palate was marked. Generalized gingival recession was evident with oozing of blood from the gingiva which was more evident in the lower anterior region (Fig. 6). There was collection of blood in the lower vestibule. On manipulation, there was accentuated bleeding of gingiva (Fig. 7).

Panoromic radiograph revealed generalized extensive alveolar bone loss. Hemogram of the patient revealed pancytopenia with RBC count of 1.92 millions/mm^3 and hemoglobin was 6.6 gm%. Total leukocyte count was 1100 cells/mm^3 (P–40%, L–60%, M–0%, E–0%, B–0%). ESR was raised to 92 mm in the 1st hour. Bleeding time was more than 15 min, though the Clotting time was 4.30 min. Platelet count had reduced to 19,000 cells/mm^3. The peripheral smears revealed anisopoikilocytosis in relation to red blood cells. There was reduction in the number of white blood cells with a shift to the left. There was also a reduction in the number of platelets.

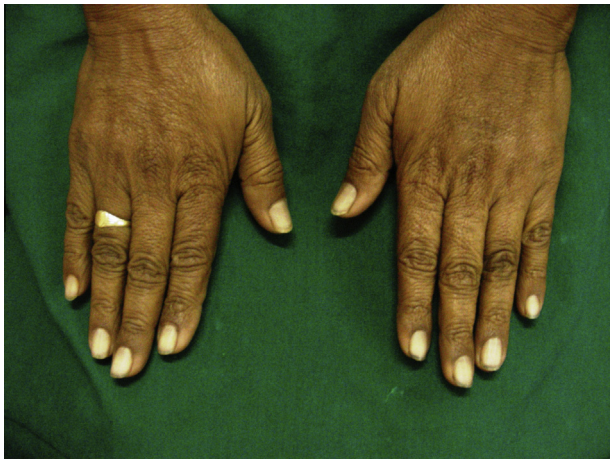

Figure 2 Clinical photograph of the patient showing pallor of nail beds.

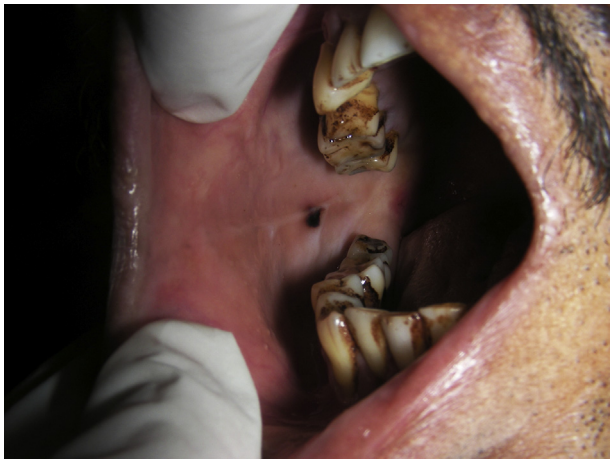

Figure 3 Intra-oral photograph showing oral hematoma on the right buccal mucosa in relation to the line of occlusion in the molar region which is approximately 2 mm in size.