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## Fever with spontaneous gingival bleeding: A diagnostic challenge

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A previously healthy 4-year-old girl was admitted to our institution with fever and painless spontaneous gingival bleeding, persisting over a week, without evident lesions or trauma. She was born in Italy and had always lived in Palermo. She had never travelled internationally. Laboratory testing showed a negative swab test for Sars-CoV2 and a tri-linear pancytopenia with neutropenia ( $0.6 \times 10^3/\text{mm}^3$ ), lymphopenia ( $1.17 \times 10^3/\text{mm}^3$ ), thrombocytopenia ( $115 \times 10^3/\text{mm}^3$ ) and anemia (Hb 7.1 g/dL, RBC  $3.48 \times 10^3/\text{mm}^3$ , Hct 21.2%, RDW-CV 23.4%, RDW-SD 51.6 fL). Other laboratory findings showed hyponatremia (130 mmol/dL), hypocalcemia (8.7 mmol/dL), hypoalbuminemia (3.5 g/dL), increase of LDH (267 IU/L), C-reactive protein (1.64 mg/dL) and alkaline phosphatase levels (190 IU/L). On physical examination she appeared in pain, pale, with hyperemic pharynx without plaque or purulent secretion and hypertrophic bleeding gingiva (see Fig. 1). There was notable cervical lymphadenopathy, hepatomegaly (1 cm below the costal margin), and splenomegaly (3 cm below the costal margin). An abdominal ultrasound showed an enlarged spleen ( $15.6 \times 6.6$  cm) and ascites.

Additional history revealed the diagnosis of visceral leishmaniasis, treated with six doses of Amphotericin B liposomal (administered for

first 5 days plus one dose on the 10th day) seven months earlier. A subsequent leishmania polymerase chain reaction (PCR) assay on blood and gingival brush confirmed the diagnosis of a leishmaniasis relapse. A comprehensive immunological evaluation including an HIV test excluded any primary or acquired immunodeficiency disease. Treatment with amphotericin B was administered over 10 days, leading to a full recovery. Visceral leishmaniasis caused by *Leishmania infantum* is endemic in the Mediterranean region. Mucocutaneous lesions are extremely rare with this species and usually affect immunosuppressed patients. In children leishmaniasis relapse with atypical mucosal involvement represent a rarity. Clinical follow up and periodic PCR tests (performed at 3-6-9-12 months after treatment) should be considered for early recognition of a relapse.

### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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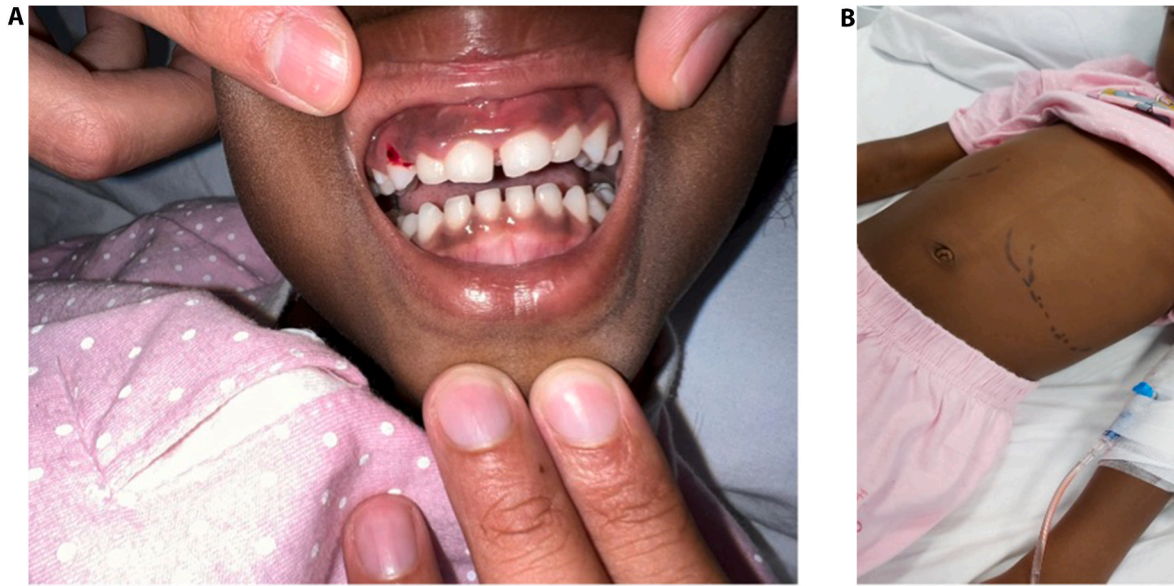
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**Fig. 1.** Hyperemic gingiva with spontaneous bleeding; b, hepatomegaly (1 cm below the costal margin), and severe hard splenomegaly (3 cm below the costal margin).