

## IMAGES IN PAEDIATRICS

## Phantom bone disease

## Enfermedad del hueso fantasma

Gerardo Rivera-Silva<sup>a,\*</sup>, Hugo C. Mora-Magallón<sup>b</sup>, Miguel A. Guerrero-Ferreira<sup>c</sup>,  
Samantha Moriel de León<sup>a</sup>

<sup>a</sup> Departamento de Ciencias Básica, Escuela de Medicina, Universidad de Monterrey, Monterrey, NL, México

<sup>b</sup> Servicio de Odontología Pediátrica, Hospital "Dr. José Torres Orozco", Morelia, Mich. México

<sup>c</sup> Facultad de Odontología, Universidad Michoacana, Morelia, Mich. México

Received 7 September 2021; accepted 1 October 2021

We present the case of a boy aged 12 years who presented with loose teeth that had erupted 6 years earlier. There was no history of trauma, infection or cancer involving the upper or lower jaw. The oral examination found an adequate mouth opening (Fig. 1), with small displacement of the teeth on palpation, and no signs of bone development, the teeth were simply covered by a reddened gum (Fig. 2). The rest of the physical examination and the blood tests were normal. The 3D dental cone CT scan evinced the presence of osteolytic lesions in the mandible and absence of alveolar bone in the teeth of both the maxilla and the mandible, giving them the appearance of floating teeth (Figs. 2 and 3). The patient received a diagnosis of Gorham-Stout syndrome. It was managed with several bone grafts to correct the bone defects.

## Commentary

Gorham-Stout syndrome, also known as phantom bone disease, is a disease of unknown aetiology characterised by osteolytic lesions that is frequently associated with benign



**Figure 1** General appearance of the mouth opening of the patient.

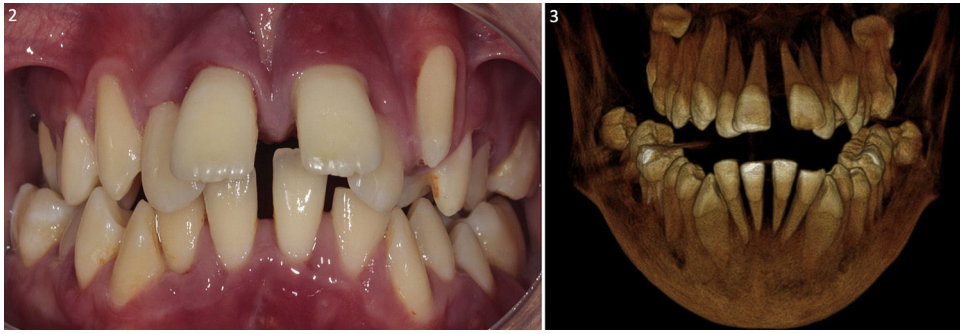
vascular or lymphatic proliferation.<sup>1,2</sup> It may affect any bone, but involves the skull, mandible and shoulder most frequently. In some cases, it may cause pain or swelling secondary to a fracture. It is a diagnosis of exclusion, since it is a rare disease and laboratory tests are usually normal, only imaging findings are abnormal.<sup>2</sup> There is also substantial variation in its management, which is personalised and based on steroids, bisphosphonates, radiation therapy or surgery for transplantation of bone grafts. However, cases of spontaneous remission have also been reported.<sup>3</sup>

DOI of original article:

<https://doi.org/10.1016/j.anpede.2021.10.002>

\* Corresponding author.

E-mail address: [gerardo.rivera@udem.edu](mailto:gerardo.rivera@udem.edu) (G. Rivera-Silva).



**Figure 2 and 3** Frontal view of the dentition of the patient, showing “floating” teeth associated with erythematous gums. Three-dimensional CT images showing a lack of alveolar bone in all teeth and osteolytic lesions in the mandible.

## Funding

This research did not receive any external funding.

## References

1. Gondivkar SM, Gadbail AR. Gorham-Stout syndrome: a rare clinical entity and review of literature. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2010;109(2):e41–8, <http://dx.doi.org/10.1016/j.tripleo.2009.08.043>.
2. Patel DV. Gorham's disease or massive osteolysis. *Clin Med Res.* 2005;3(2):65–74, <http://dx.doi.org/10.3121/cmr.3.2.65>.
3. Gutiérrez Schiaffino G, Leiva Gea I, Martín Tejedor B, Jiménez Hinojosa JM, Madrid Rodríguez A, Urda Cardona A. ¿Es la actitud expectante en el síndrome de Gorham una opción terapéutica? *Anales de Pediatría.* 2014;81(6):e64–5, <http://dx.doi.org/10.1016/j.anpedi.2014.02.022>.