

Gingival enlargement induced by dihydropyridine calcium channel blockers in a young child

Jaume Miranda-Rius,¹ Lluís Brunet-Llobet,² Eduard Lahor-Soler,¹ Albert Ramírez-Rámiz¹

¹Departament d'Odontostomatologia, Universitat de Barcelona, L'Hospitalet de Llobregat, Barcelona, Spain

²Servei d'Odontologia, Hospital Sant Joan de Déu, Universitat de Barcelona, Esplugues de Llobregat, Barcelona, Spain

Correspondence to

Dr Jaume Miranda-Rius, jmiranda-rius@ub.edu

Accepted 13 August 2014

DESCRIPTION

A 3-year-old boy presented to the paediatric dentistry department with a serious gingival enlargement. He had a remarkable medical history: idiopathic arterial calcification with secondary arterial hypertension, mixed cardiopathy (hypertrophic and congestive), hyper-reninaemic hyperaldosteronism, congenital hypothyroidism and a ductus arteriosus surgery.

It was noted that he had been taking calcium antagonists since he was born. The patient's average high blood pressure was 132/84 mm Hg. He took nifedipine 3.2 mg/8 h during the first 2 years of life but 1 year prior this dihydropyridine was changed to amlodipine 10 mg/12 h.

Gingival enlargement or gingival overgrowth has been associated with inflammatory, pharmacological and neoplastic factors. Chronic inflammation, secondary to dental plaque accumulation, is the most common cause of gingival overgrowth. Drug-induced gingival enlargement (DIGE) is an adverse reaction associated with the use of phenytoin, cyclosporine A and calcium-channel blockers (nifedipine, amlodipine, verapamil and diltiazem).^{1,2}

The patient presented a severe gingival enlargement according to GO and MB indices.³ The oral examination confirmed that most of his clinical crowns were completely covered by gingival tissue (figures 1 and 2).

On examination, considering the deterioration of the child's condition, a resective periodontal surgery (gingivectomy) under general anaesthesia was contraindicated. In the meantime, his parents were instructed on thorough oral hygiene using gauze soaked in chlorhexidine 0.20% mouthwash. The present case report is relevant because this severe gingival dimorphism is very uncommon at our patient's age. Additionally, these clinical images prove that DIGE may even appear at the first stages of development.



Figure 1 Clinical image. A severe vertical and horizontal gingival overgrowth.



Figure 2 Clinical image. Notice how the gingival tissue reaches the occlusal surfaces.

Learning points

- ▶ Severe gingival enlargement induced by drugs may even appear at the first stages of development.
- ▶ Paediatric patients who take calcium antagonists should follow thorough oral hygiene in order to diminish the risk of suffering from this gingival dimorphism.
- ▶ Any extreme gingival overgrowth always requires a resective periodontal surgery, in order to remove the excess of gingival tissue.

Contributors JM-R, LB-L, EL-S and AR-R were the consultants responsible for diagnosing and treating the patient in this case report. All authors have cowritten, read and approved the final version of this manuscript.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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To cite: Miranda-Rius J, Brunet-Llobet L, Lahor-Soler E, *et al*. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2014-206761

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