

Published 12 July 2009

Cite this as: *BMJ Case Reports* 2009 [doi:10.1136/bcr.06.2008.0290]

Copyright © 2009 by the BMJ Publishing Group Ltd.

Images In...

Ecstasy (3, 4-methylenedioxymethamphetamine, MDMA) related necrotising ulcerative gingivitis

Jaume Miranda-Rius¹, Lluís Brunet-Llobet² and Eduard Lahor-Soler¹

¹ Departament d'Odontostomatologia. Universitat de Barcelona & Clínicss Associats, Sant Llorenç, 53 - Terrassa 08221- Barcelona, Spain

² Hospital Universitari Sant Joan de Déu. Universitat de Barcelona & Clínicss Associats, Sant Llorenç, 53 - Terrassa 08221- Barcelona, Spain

Correspondence to:

Jaume Miranda-Rius, clinics@clinicsassociats.cat 

Necrotizing ulcerative gingivitis (NUG) is an acute and occasionally recurrent infection of complex aetiology which is characterised by the sudden occurrence of gingival pain, necrosis of interdental tissue, and bleeding.¹

The bacterial flora develops as the result of an altered host response, especially in teenagers and young adults. Precipitating factors reported include: stress, smoking, poor dietary habits, and oral hygiene.¹

A 19-year-old male presented with a 1 day history of general malaise, halitosis, foul taste in the mouth, and painful upper/lower left jaws. He was a non-smoker and he had no other past medical history of note.

During the examination, the patient admitted to having used "Ecstasy" (3, 4-methylenedioxymethamphetamine, MDMA) as a recreational drug 3 days before the onset of symptoms and to storing the drug next to the site of the periodontal necrosis. Local drug induced necrotising gingivitis was diagnosed (figs 1 and 2). A differential diagnosis of desquamative gingivitis and herpetic gingivostomatitis was also made.



View this figure (62K):
[in this window](#) | [in a new window](#) | [PowerPoint for Teaching](#)

Figure 1 Marginal gingival necrosis in upper and lower left jaws related to use of Ecstasy (MDMA).

Note that plaque control is rather good in this patient.



View this figure (107K):
[in this window](#) | [in a new window](#) | [PowerPoint for Teaching](#)

Figure 2 Close up of ulceration. Note characteristic gingival crater defects and marginal pseudomembranes.

The patient was advised to stop using MDMA. Treatment included surgical debridement—scaling and root planing—of the teeth involved with chlorhexidine 0.20% irrigation and 5 days oral amoxicillin/clavulanic acid 875+125 mg every 8h and metronidazole 500 mg every 8h. The recovery was satisfactory.

Several cases of NUG have been associated with the consumption of MDMA. The possible mechanism might be related to a direct contact between the drug and oral mucosa, the acid components of the tablet and the dry mouth induced by MDMA.^{2,3}

In some patients, NUG can progress to necrotising periodontitis and even to necrotising stomatitis, potentially leading to a fulminating orofacial infection known as noma or cancrum oris.¹

Prof. Dr. Magí Farré, Unit of Human Pharmacology and Neurosciences, Institut Municipal d'Investigació Mèdica (IMIM-Hospital del Mar), Facultat de Medicina, Universitat Autònoma de Barcelona, Barcelona, Spain

Competing interests: none.

Patient consent: Patient/guardian consent was obtained for publication

REFERENCES

1. Claffey, N. Enfermedad gingival inducida por placa. Gingivitis Ulceronecrosante. In: J Lindhe, ed. *Periodontología Clínica e Implantología Odontológica*. Buenos Aires: Editorial Panamericana, 2005: 215–17.
2. Brazier, WJ, Dhariwal, DK, et al. Ecstasy related periodontitis and mucosal ulceration a case report. *Br Dental J* 2003; 194: 197–9.[\[CrossRef\]](#)[\[Medline\]](#)
3. Brand, HS, Dun, SN, & Nieuw Amerongen, AV. Ecstasy (MDMA) and oral health. *Br Dental J* 2008; 204: 77–81.[\[CrossRef\]](#)[\[Medline\]](#)