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### Titanium dental implants allergy: clinical and histopathologic diagnosis

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Although well tolerated, titanium (Ti) in a small number of patients is presented as an aggressor to the body and can cause an allergic reaction. The aim of this study is to report the case of a male patient, 47 years old, Caucasian, searched for rehabilitation treatment by dental implants in teeth 34, 35 and 36. After 4 months of the dental implants installation the reopening and the installation of healing abutments of Ti was done. After 7 days, the alveolar mucosa showed epulide lesion, reddish, with edema, covering up the healing abutments in the teeth 35 and 36. The first procedure was a biopsy of the lesion, in which histopathological examination showed inflammation with the presence of eosinophils. The hemogram was requested, which showed eosinophilia. The medical evaluation has ruled out the presence of parasitic infection. Immunohistochemical reactions were performed and an intense staining was observed for IL-6, IL-17, IL-23, IL-1 $\beta$ , TNF- $\alpha$ , IFN $\gamma$  and CD5. The PATCH test was performed, confirming that the patient has hypersensitivity to titanium and its alloys. After 7 days of biopsy, there was again the formation of epulides covering up the healing abutments at the posterior region, where the procedure was the application of ceramic plastic UCLAs, to prevent the contact of the tissue with the metal. After 10 days, it was possible to observe clinically the regression of the lesion. The prosthesis was installed and the patient keeps on monitoring clinical and radiographic 2 years without recurrence or peri-implant bone changes. Therefore, allergic reactions to titanium are rare, but possible to occur. Thus, professionals who work with materials containing the substance should be aware of this possibility and meet the therapeutic possibilities.

**Descriptors:** Dental Implants; Hypersensitivity; Titanium.