

## **Botulinum Toxin Type A as Preoperative Treatment for Immediately Loaded Dental Implants Placed in Fresh Extraction Sockets for Full-Arch Restoration of Patients With Bruxism.**

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### **Abstract**

#### **OBJECTIVES:**

The aim of the present report was to describe the use of Botulinum toxin type A as preoperative treatment for immediately loaded dental implants placed in fresh extraction sockets for full-arch restoration of patients with bruxism.

#### **METHODS:**

Patients with bruxism who were scheduled to receive immediately loaded full-arch implant supported fixed restorations were included in this retrospective clinical report. To reduce the occlusal forces applied in patients with bruxism, Botulinum toxin type A was introduced prior to the implant placement procedure. Patients were followed and implant survival as well as peri-implant bone level was assessed in each periodic follow-up visit. Adverse effects were also recorded. A control group with no use of Botulinum toxin was evaluated as well.

#### **RESULTS:**

A total of 26 patients (13 test and 13 control), with bruxism, aged  $59.15 \pm 11.43$  years on average were included in this retrospective report and received immediately loaded dental implants placed in fresh extraction sockets for full-arch restoration. The test group treatment preceded by Botulinum toxin type A injection. Maxillary arches were supported by 8 to 10 implants while the mandibular arch was supported by 6 implants. All surgeries went uneventfully and no adverse effects were observed. The average follow-up time was  $32.5 \pm 10.4$  months (range, 18-51). In the test group, no implant failures were recorded. One patient presented with 1 to 2mm bone loss around 4 of the implants; the other implants presented with stable bone level. In the control group 1 patient lost 2 implants and another demonstrated 2mm bone loss around 3 of the implants.

#### **CONCLUSIONS:**

The preoperative use of Botulinum toxin in patients with bruxism undergoing full-arch rehabilitation using immediately loaded dental implants placed in fresh extraction sockets seems to be a technique that deserves attention. Further long-term, large-scale randomized clinical trials will help to determine the additional benefit of this suggested treatment modality.