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±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±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.