UNIVERSITY of MODENA and REGGIO EMILIA, Italy

Department of Surgical, Medical, Dental and Morphological Sciences
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Master's Degree Course in Dentistry and Dental Prosthesis
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CLINICAL PERFORMANCE OF POST-EXTRACTION WIDE IMPLANTS: 5-YEAR FOLLOW-UP.

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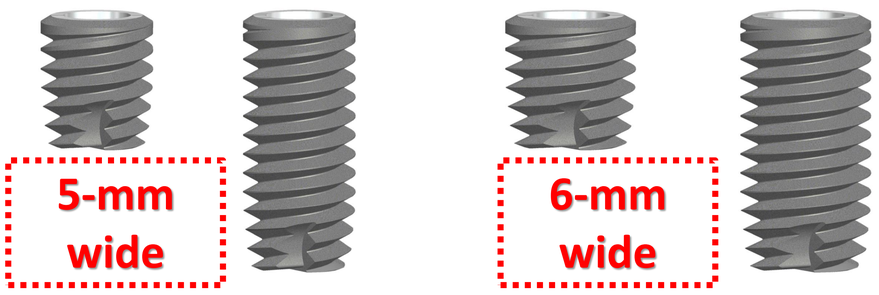
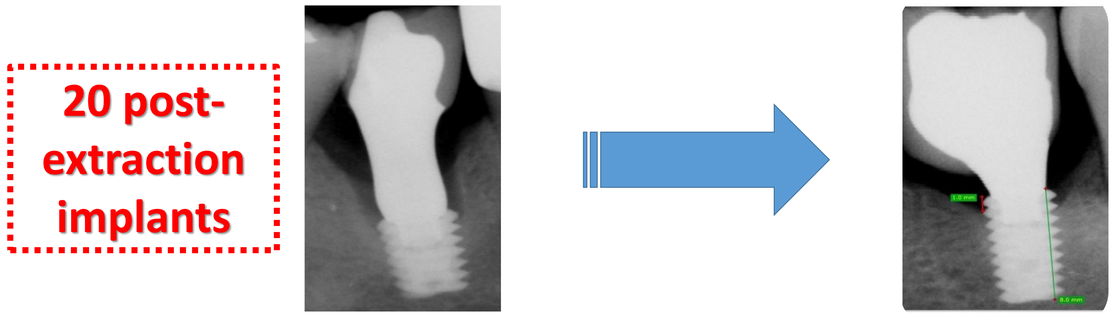
OBJECTIVES

The purpose of this study is to evaluate the success rate and the peri-implant bone resorption of wide (5- to 6-mm) implants (*EVEN, Mech & Human srl, Albignasego, Italy*) used for immediate implant surgery, after 5 years of follow-up.

METHODS

Twenty implants were placed in post-extraction sockets in molar and premolar region, in mandibular and maxillary bones, in patients of both genders. The operators adopted the under-preparation technique in every implant site prior to place the fixtures. All implants underwent transmucosal healing for 3 or 4 months before occlusal load, and all patients received a standard post-surgical and maintenance protocol. Screw-retained single-crowns were delivered at proper time in all 20 cases. Periapical radiographs were taken immediately after implant placement, during the prosthetic stage, and at each year of follow-up. The peri-implant bone resorption was measured with ImageJ software.





RESULTS

Out of 20 implants placed, 1 did not achieve osseointegration after the healing phase; therefore the implant survival rate was 95%. The average marginal bone loss was 0.68±0.17 mm after 12 months, 0.85±0.19 mm after 2 years, 0.93±0.15 mm after 3 years, 0.98±0.21 mm after 4 years, and 1.01±0.17 mm after 5 years. All prosthetic rehabilitations were successful and in function at last follow-up.

CONCLUSIONS

Despite the limited sample size, the adoption of wide (5- to 6-mm) immediate implants in molar and premolar sites with under-preparation seems to ensure good implant and prosthetic success rates after 5 years of loading. Also, the trend of peri-implant bone resorption seems comparable with data from similar studies on non-immediate, 5- to 6-mm wide dental implants.

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