

THE EFFECT OF DIFFERENT TYPES OF OCCLUSAL LOADING ON MARGINAL BONE CHANGES AROUND DENTAL IMPLANTS

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بسم الله الرحمن الرحيم

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صدق الله العظيم

من سورة المجادلة الآية ١١

**“All that I am, or hope to be, I owe to my angel
mother”**

Abraham Lincoln

**I dedicate this work to my dearest mother,
to whom I owe any achievement in my life.**

**Although she is no longer present in
person, but her soul remains to be an ever
present inspiration and support.**

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List of Abbreviations

ART	Acid-etched Roughened Titanium
BIC	Bone Implant Contact
Fig.	Figure
HA	Hydroxy Apatite
gm	gram
IAJ	Implant Abutment Junction
M	months
µm	micrometer
mm	millimeter
N cm	Newton centimeter
NS	Non-significant
P	Probability level
S.D.	Standard deviation
TPS	Titanium Plasma Spray
TM	Trans Mucosal

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Review of Literature

The restoration of missing teeth using dental implants has been widely acceptable in replacing human masticatory function.¹ Indeed, high survival rates and long-term predictability for clinically loaded endosseous implants have been long documented.^{2,3} However, increased patient expectations including reduced treatment time as well as improved esthetics and comfort, directed dental clinicians towards immediate loading of dental implants.⁴

Immediate loading of dental implants not only implies the use of a nonsubmerged, one-stage surgery, but also the loading of the recently inserted fixtures with a prosthetic restoration, either provisional or definitive.⁵ Immediate implant restoration with functional loading provides better patient comfort, allows quick masticatory function and esthetics. These have commonly caused physiological, psychological or sociological challenges for patients who underwent implants treatment.⁶ In addition, it also eliminates the inconvenience of a second stage approach for placement of abutments. This often leads to early soft tissue healing and results in