



**Journal of Prosthodontics Dentistry**  
**An Official Publication of Bureau for Health & Education Status Upliftment**  
 (Constitutionally Entitled As Health-Education, Bureau)

## Influence of Implant Thread Design on Marginal Bone Levels - A 1 year radiographic study

<sup>1</sup>Dr Sanjay B. Lagdive & <sup>2</sup>Dr Rupal J. Shah

<sup>1</sup>Phd Student, Gujarat University.

<sup>1</sup>Professor, Department of Prosthodontics, Government Dental College & Hospital, Ahmedabad.

<sup>2</sup>Professor & Head of Department, Department of Prosthodontics, Government Dental College & Hospital, Ahmedabad.

Email: [service.heb@gmail.com](mailto:service.heb@gmail.com)

### ABSTRACT


**Introduction:** The basis of the successful long term results of endosseous implants depend mainly on the preservation of bone support. Crestal bone changes also occur during the early phase of healing after implant placement. Some studies have shown that certain implant designs may contribute to bone loss while other studies have indicated that such bone loss could be prevented by incorporation of design elements like microthreads.

**Materials and methods:** Patients treated with dental implant were called for follow up visit after one year from implant placement. Clinical examination pertaining to implant and prosthesis was done. Three groups of subjects were formed and accordingly three different implants systems were analysed 1) dentium, 2) Osstem, 3) ARDS. Intraoral periapical radiographs of all subjects were obtained with paralleling technique using Rinn XCP (extension cone paralleling) device (Dentsply Sirona ltd). All the radiographs were then converted into digital image. Implant shoulder was taken as reference for assessing the bone levels and calculating how much amount of bone loss had occurred.

**Results:** The mean difference in mesial bone loss after 1 year in Group I was 0.51+/- 0.56, In Group II was 0.25+/- 0.32 and in group III was 0.71+/- 0.56. The mean difference in distal bone loss in group I was 0.43+/-0.65, in group II was 0.17+/-0.25 and in group III was 0.58+/-0.48.

**Conclusions:** Within limitations of our study, results indicate that there is significant amount of bone loss in implants with microthread design. Further such studies are required in future to justify and support our study.

**Keywords:** Crestal Bone loss, Microthread, Dentium, Osstem, ARDS.

Access this Article Online	<b>Quick Response Code:</b> 
Website: <a href="http://heb-nic.in/jopd">http://heb-nic.in/jopd</a>	
Received on 21/07/2020	
Accepted on 27/07/2020 © HEB All rights reserved	