Objective: The aims of this study were to evaluate and compare the clinical peri-implant tissue and bone level status of Mini Dental Implants (IMTEC®) supporting fixed and removable prostheses.

Methods: This retrospective study included patients treated at the Faculty of Dentistry, University Malaya. There were a total 28 IMTEC® Mini Dental Implants (MDI) placed in 10 patients (2 in the maxilla, 8 in the mandible). 5 arches were treated with fixed and 3 with removable prostheses. Clinical evaluation of Plaque Index (PI), Gingival Index (GI), Probing Pocket Depth (PPD), Gingival Recession (GR), Attached Gingiva (AG) and Bleeding On Probing (BOP) as well as radiographical evaluation conducted. The author obtained the radiological assessments of the bone status around the implant for more than one year (1-3 yr) in relation to the baseline radiographs. Statistical analysis was performed using Mann-Whitney and Chi-Square test.

Results: All clinical parameters (PI, GI, PPD, GR and BOP) showed no statistically significant difference when comparisons between implants supporting fixed or removable prostheses were analysed except for the AG (p<0.01). However, it was observed that there were higher PI and BOP scores in fixed prostheses. Radiological evaluation indicated that fixed prostheses had greater bone stability than the removable prostheses, although this was not statistically significant (P>0.05).

Conclusion: Within limitations of this study, clinical and bone level status around implants supporting fixed or removable prostheses were not significantly different. (Vote F Funding, University Malaya)