SUMMARY

The proposed study compared the esthetic success of immediate flapless implantation (ILA), to immediate implant loading with the need for flap (ILB) and delayed loading (DSL) in single tooth restorations in the anterior maxilla. Index used for measurement was the Papilla Index (PPI) given by Jemt (1997). The other aim of the study was to find out if any relation exists between the interproximal crestal bone height and papilla length. Analysis was done irrespective of treatment procedure in the same study group using periodontal sounding and radiographs to find out the relation. Another goal was to assess the stability of implants in grafted areas in posterior maxilla.

From the study involving 106 participants, including 21 ILA, 22 ILB and 63 DSL cases, we received highest PPI score of 2.6 average from group ILA, followed by ILB and DSL, after 3 months of prosthetic loading. From the periodontal sounding and radiographic study it was evident that, when the distance between the base of the contact point of crowns and height of interproximal bone was ≤ 5 mm, the papilla was present 100% of the time, but when the distance increased to 6 and ≥ 7 mm, the papilla was present only 46.5 and 24.0 percentage of the time respectively.

Experimental part: The stability of implants inserted into two-stage sinus lifts were measured using resonance frequency analyzer (RFA) at an interval of six months. Sixteen implants from 13 patients were subjected to RFA test. It also proved that, the stability values during this period converge to a value, which is more or less the average of their initial stabilities.

To conclude, immediate flapless implants inserted into the extraction socket is esthetically a better treatment option compared to implantation with the need of a flap in healed ridges and delayed loaded implants. There exists an indirectly proportional relationship between the distance from the crestal bone level to the contact point of the crowns and the length of interproximal papilla.