Comparison between single implant tooth and multiple implant teeth after creation of interdental/interimplant papillae by using scalloping technique.

(Clinical and Radiographical Assessment)

## A thesis

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## **Abstract**

**Background**: The purpose of implant dentistry is to restore the form, esthetics, comfort, health of the teeth and adjacent structure for human patient, there for many studies try to get better esthetic results through creation and recontouring of papillae and normal gingival contour.

**Objectives**: Aim of the study was to compare and determine the success rate of esthetics between single implant tooth and multiple implants teeth after creation of inter dental / inter implant papillae by using scalloping technique (clinical and radiographical assessment).

**Materials and methods:** 32 implants of friadent (Germany), were carried out in a healthy non smoker patients in the upper jaw. Age of patient ranges between (20-60 years) mean age 40 years. The implants were divided into two groups. Each group contains 16 implant.

The 1<sup>st</sup> group were placed as single tooth bounded by natural tooth and named as (single implant tooth group), While the other group contain 16 implants were placed together adjacent to each other and named as (multiple implants teeth groups). In the two groups, in surgical technique we use scalloping of the crest bone before placement of the implant . The success was depend on the formation of inter dental / inter implant papillae were scored by jemt index (score 3) and Gingival Index (score 0). The two groups evaluated clinically through jemt index and gingival index and radiographically using O.P.G (Dimax system in mm). The follow up for the clinical and radiographical assessment were carried out at 3 times interval, immediately postloading of final restoration, 3 months postloading and at 6 months postloading of final restoration.

Pre and post operative radiograph were taken for each implant patient.

**Results:** clinical finding show that the result in both jemt and gingival index was batter in single than in multiple groups, where the success rate in papillae index show slightly more success rate in single tooth group. 93.75% mesially and 87.5% distally than in multiple implant group (81.25%) mesially and distally. While in gingival Index was (81.25%) mesially and (93.75%) distally for single implant group which is more than multiple implant group (68.75%) mesially and (43.75%) distally.

**Conclusion:** All clinical finding used by jemt and gingival indices showed better results in single implant group than multiple implant group and marginal bone loss in multiple implant group more than in single implant group.