

***Determination of the success rate of immediate loading
dental implant in comparison with delayed loading dental
implant in Iraqi patients***

(Clinical and Radiographical Assessment)

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Abstract:

Background: Conventional dental implant (Two stages dental implant) takes about 4-6 months between the first and second stage in which the dental implant loaded in the function. These concerns have commonly causes physiological, psychological, and sociological challenges for patients, therefore focus on loading implant soon after their placement has been attempted and has gained some acceptance among clinicians.

Objectives: The purpose of this study was to evaluate the clinical and radiographical state of immediate loading dental implant success in comparison with delayed loading dental implant.

Patients and methods: Thirty dental implants of Friadent system (Germany) (Length 15mm and diameter 4.5mm and 5.5mm) were carried out on upper and lower jaws of (27) healthy, non-smokers, and aging 18-40 years (mean age 27.9years) human patients. They were divided into two groups; the immediate and delayed loding group.

Clinical examination included pain , swelling , mucosal bleeding ,sinus formation, and mucosal gap formation were carried out at 1 , 2 , weeks ,1 , 3 , and 6 months time intervals postoperatively, while implant mobility was assessed at 1,2 weeks , 1 , 3 , and 6 months time intervals postloading the restoration(4-7 days)in case of immediate loading group , and (4-6 months) in case of delayed loading group.

Radiographical examination was carried out by using digital panoramic radiographs to assess marginal bone loss around the implant at 1, 3, and 6 months time intervals postoperatively.

Results: The results showed less pain and swelling with immediate loading group than delayed loading group, however, pain vanish after one month postoperatively in both groups, while swelling disappeared from the immediate loading group after the second weeks and after the first month from the delayed loading group.

Mucosal bleeding was more in delayed loading group than immediate loading group, but it disappeared in delayed loading group after the second weeks and in immediate loading group it disappeared after the first month.

Sinus discharge and mucosal gap formation did not appear in both groups.

Implant mobility was more in immediate loading group in 1, and 2 weeks postloading the restoration than delayed loading group, but at 1, 3, and 6 months time intervals, delayed loading group show more mobility than immediate loading group postloading the restoration.

Marginal bone loss was less in immediate loading group than delayed loading group both mesially and distally.

Immediate loading recorded higher success rate (93.3%) than delayed loading group (66.7%).