

**Ministry of Higher Education
& Scientific Research
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College of Dentistry**



Potential Effect Of 2%CHX Gel in the Implant Screw Hole on Bacterial Count

A thesis submitted to the council of the College of
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Periodontics

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Abstract

Background:

Microbial penetration inside the implant's internal hole creates a bacterial reservoir that is related with an area of inflamed connective tissue in contact with the fixture-abutment junction and this can affect the health of the peri-implant tissue. Chlorhexidine has been used to prevent late influence peri-implant tissue health as a 0.2% solution, a varnish or gel.

Aims of the study:

To evaluate the aerobic / anaerobic bacterial count-reduction potential of 2% CHX gel placed, at the time of surgery, in the implant screw hole over a period of minimum 90 days, and monitor the periodontal health status of all patients, throughout the study

Material and methods:

Study methodology

Ten partially edentulous patients received 30 DI and these implants randomly allocated in to:

Group I (test) 15 implants applied by flap or flapless surgery with 2%CHX gel application at the internal implant screw hole

Group II (control)15 implants applied by flap or flapless surgery without CHX gel application.

All patients examined clinically to determine their oral health status by examination of their plaque index PLI, Gingival index GI, Bleeding on probing BOP and probing pocket depth PPD, each two weeks throughout the study period.

Three months after that the plaque sample collected from the internal hole of fixture and send to bacteriological examination and test the count of bacteria aerobically and anaerobically.