



**ISTITUTO STOMATOLOGICO TOSCANO**  
*Fondazione per la Clinica, la Ricerca e l'Alta Formazione in Odontoiatria*

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**Title:** antimicrobial efficacy of a gel containing propolis on suture threads

**Introduction and rationale:** the suture threads used after oral surgery may be colonized by pathogens. These microorganisms could infect the surrounding tissues and impair the healing process of wounds. Therefore, post-operative use of antimicrobials is highly recommended. In this work, are compared a gel containing vitamin C, vitamin E and propolis with nano biotechnology (NBF GEL) as opposed to a gel containing chlorhexidine to 0.20% to compare their effectiveness in reducing bacterial adhesion to suture threads.

**Objective:** the objective of the study is to evaluate the possible benefit of the administration of propolis gel in treating post surgery. This Protocol is a pilot study therefore our aim is to pave the way for laboratory and clinical investigations involving the enrollment of a substantial number of patients.

**Materials and methods:** this study is a prospective, randomized clinical trial, and will take place at the premises of the Tuscany Dental Institute. Afferent patients undergoing minor surgery will be randomly assigned to the test group or control:

- Group Test: patients treated after surgery of small surgery with gel containing vitamin C, vitamin E and propolis with nano biotechnology
- Group control: patients treated after surgery of small surgery with chlorhexidine gel.

All subjects followed a home treatment with the product is assigned to the respective group. After their removal, the suture strands were cut into segments and bacteria were grown in culture to count the colonies formed.

**Expected results:** we expect at least an overlay of results in total viable bacterial and count of mesophilic anaerobic strains, lactobacillus and specifics between the test group and control group. This will make it possible to assess whether the gel containing vitamin C, vitamin E and propolis with nano biotechnology appears to possess at least the same antibacterial efficacy of gel containing chlorhexidine, without the typical side effects of chlorhexidine.