



Background: Due to the vast applications of nanoparticles in the medical field, as well as the production and targeting of biomolecules, studies on the properties of these particles are essential. Titanium oxide nanoparticles (TiO<sub>2</sub> NPs) have antibacterial activity and are recognized as photocatalytic materials which are applied in

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## Poster Presentations

P1

### Evaluating the Effect of Oral Bromelain (Pineapple) on Episiotomy Wound Healing in Primiparus Women

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Background: Episiotomy is the most common perineal incision in midwifery to facilitate the expulsion of the fetus. Perineal damages cause disability in many normal daily activities. The purpose of this study was to determine the effect of bromelain on episiotomy wound healing in primiparus women.

Material and Methods: This article is review study and information compiling has been done with pub Medsciences direct - Scopus- Cochrane Library and Google scholar from 2000 till 2018.

Results: Bromelain has significant effect on better and faster healing of episiotomy wound. Hence, it can be used to accelerate episiotomy wound healing.

Keywords: Bromelain, Episiotomy, Wound Healing

P2

### Effects of Low-Power Light Therapy on the Tissue Repair Process of Chronic Wounds in Diabetic Feet

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Background: To analyze the efficacy of the therapeutic use of Low-Level Laser Therapy (LLLT) on the tissue repair process of chronic wounds in patients with diabetic

feet through the analysis of Pressure Ulcer Scale for Healing (PUSH) scales, pain and the measurement done using the ImageJ© software.

Methods: This clinical trial was carried out with 24 patients 30-65 years of age, who had chronic wounds on their foot due to complications of diabetes mellitus. The patients were randomly allocated in two different groups of equal numbers: Control and Laser Groups. The LLLT equipment used in the research has a wavelength of 660 nm, 30 mW power, continuous mode emission, 6 J/cm<sup>2</sup> dosimetry, 48/48 h in a 4-week period. Measurement and the aspect of wounds were noted in the PUSH scale and the pain was evaluated weekly. The Mann-Whitney U nonparametric test was used to compare groups.

Results: The Laser Group presented a significant increase of the tissue repair index when compared with the Control Group, with a significant statistical difference ( $p < 0.016$ ). There was no significant difference between the groups in all the weeks using the PUSH scale.

Conclusions: The use of LLLT on chronic wounds in a diabetic foot demonstrated efficacy on the progression of the tissue repair process in a short period.

Keywords: Chronic Wounds, Diabetic Foot, Phototherapy, Wound Healing

P3

### Role of Entegrins in Wound Repair and its Periodontal Implications

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Wound healing in human periodontium is a complex process which involves both cell - cell and cell-matrix interactions. Entegrins play a major role in regulation of these cell - cell, cell - matrix interaction. Wound healing involves two major