

臺北醫學大學 104 學年度碩士班暨碩士在職專班招生入學考試

臨床牙周口腔醫學試題

本試題第 1 頁；共 2 頁

(如有缺頁或毀損，應立即請監試人員補發)

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| 注 意 事 項 | <p>一、本試題共七題，共計 100 分。</p> <p>二、請將最適當的答案依題號作答於考試答案用卷上。</p> <p>三、試題答錯者不倒扣。</p> |
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- 一、Please list the “Effects of Smoking on Response to Periodontal Therapy”. (15%)
- 二、Please diagram the interaction of “stimuli” and “factors” regulating osteoclastogenesis. (15%)
- 三、Please describe the relationship between “Osteoporosis” and “Periodontitis” from the viewpoint of bone physiology. (15%)
- 四、Explain the types of laser and their applications in Dentistry. (15%)
- 五、Please list the types of materials and their indications for use in the “Guided Bone Regeneration” – GBR. (10%)
- 六、假如你將是未來牙周病醫學組之研究生，對於臨床與研究，你將會有何期許與規劃？(15%)
- 七、請就下列研究論文，有關牙周基本治療對血糖控制不良之糖尿病患之 A1c 具有中度療效，請提出你於牙醫實證醫學對這篇論文之認知。(15%)

- Non-surgical periodontal therapy with and without subgingival minocycline administration in patients with poorly controlled type II diabetes. A randomized controlled clinical trial. *Clinical Oral Investigations* 2012;16(2):599-609 (SCI).

Abstract The aim of this study was to evaluate changes in clinical parameters and levels of inflammatory biomarkers in plasma in periodontal patients with poorly controlled type 2 diabetes mellitus (T2DM) after non-surgical periodontal therapy. Twenty-eight poorly controlled T2DM patients were randomly assigned to treatment with scaling and root planning (SRP) and SRP + subgingival minocycline administration. Clinical parameters, including the probing depth (PD), bleeding on probing (BOP), plaque score (PS), clinical attachment level (CAL), and plasma interleukin (IL)-6, soluble receptor of advanced glycation end products (sRAGE), chronic reactive protein (CRP), and hemoglobin A1c (HbA1c) were measured before and after a 6-month treatment period. Significant changes in PD, BOP, PS, and CAL were found in both groups. The latent growth curve model showed an overall reduction in the log

HbA1c level in the SRP group ($-0.082, p=0.033$). Small changes in the log sRAGE level and log CRP level in plasma were found in both groups. IL-6 in the plasma increased in the SRP group, but slightly decreased in the SRP+minocycline group ($0.469 \text{ pg/ml}, p=0.172$). Non-surgical periodontal therapy with or without subgingival minocycline application may achieve significant periodontal improvement and moderate improvement in HbA1c, but had no significant effect on plasma levels of IL-6, CRP, or sRAGE in patients with poorly controlled T2DM. For patients with both periodontal diseases and diabetes, non-surgical periodontal treatments may be helpful in their diabetic control.

Keywords Root planning · Type II diabetes · Minocycline · HbA1c · sRAGE · CRP

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