Prophetic Medicine for Treatment of Radiotherapy-Induced Mucositis

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Objective: Mucositis is a debilitating complication of radiotherapy treatment in nasopharyngeal carcinoma (NPC). Mucositis can lead to malnutrition due to poor oral intake, and the cancer treatment protocol might be postponed due to this condition. Until now, there is no specific treatment to prevent radiotherapy-induced mucositis in NPC patients. The usage of propolis mouthwash is believed to be one of the important remedies to reduce the severity of mucositis in the future. We sought to evaluate the effectiveness of propolis mouthwash in preventing radiotherapy-induced mucositis in NPC patients.

Methods: This is a double arm, prospective, randomized control trial (RCT) with intervention involving 17 patients diagnosed with NPC attending ORL-HNS clinic in Institut Perubatan & Pergigian Termaju (IPPT) Bertam. 10 patients were given propolis mouthwash and another 7 patients were given normal saline mouthwash as a placebo. The effectiveness of propolis mouthwash was assessed by repeated measures ANOVA.

Result: All 17 NPC patients were randomly divided into propolis group (intervention) and normal saline group (placebo). 10 patients were given propolis mouthwash and another 7 patients were given normal saline mouthwash. Comparison of adjusted mean and 95% confidence interval of mucositis grading score between propolis mouthwash and normal saline showed at the second week was 0.10(-0.13, 0.33) vs 1.14(0.31, 1.98), fourth week: 0.50(0.12, 0.88) vs 2.00(1.47, 2.53), and sixth week: 1.20(0.90, 1.50) vs 2.86(2.51, 3.21), respectively. Repeated measures ANOVA showed P<0.001, indicating a significant improvement of mucositis grading between propolis and normal saline group.

Conclusion: Propolis mouthwash is proved to be effective in reducing the severity of radiotherapy-induced mucositis in NPC patients and it is safe to be used. Therefore, its use is recommended as an adjunct treatment during the treatment protocol of NPC.

Keywords: propolis mouthwash, mucositis, radiotherapy, nasopharyngeal carcinoma

DOI: http://dx.doi.org/10.31344/ijhhs.v6i0.431

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