ABSTRACT

ZAHRA ADINDA PUTRI. 2026. Dietary Therapy, Intake Levels of Macronutrients, Vitamin C, and Zinc, and Healing Outcomes in Diabetes Mellitus with Pedal Cellulitis. Scientific Paper. Health Polytechnic of the Ministry of Health Malang. Supervisor: Endang Widajati, SST., M.Kes., RD.

The prevalence of diabetes mellitus in Indonesia ranks sixth globally, with 10.3 million cases, and is projected to increase from 10.7 million in 2019 to 13.7 million by 2030. East Java Province ranks fifth nationally with a prevalence of 2.6%, increasing from 2.1% in 2013. At RSUD Kota Malang in 2023, there were 412 diabetes mellitus patients out of a total of 4,224 hospitalized patients, which increased in 2024 to 523 patients out of 5,205 total inpatients. Uncontrolled type 2 diabetes mellitus can lead to complications, one of which is pedis cellulitis, requiring comprehensive management including dietary therapy. Dietary therapy plays an important role in controlling blood glucose levels and supporting wound healing through adequate intake of macro- and micronutrients such as vitamin C and zinc. This study aimed to determine dietary therapy, intake levels of macronutrients, vitamin C, and zinc, as well as healing outcomes in patients with diabetes mellitus and pedis cellulitis. This study used a case study method with a descriptive-analytic approach on one hospitalized patient at RSUD Kota Malang. Data were collected through interviews, medical record observations, 3×24-hour food recall, and food weighing. Data analysis was conducted descriptively on dietary therapy, nutrient intake levels, and the patient's clinical progress. The results showed that dietary therapy was in accordance with the 3J principle (schedule, type, and amount). Nutrient intake levels increased, although they had not fully met the requirements. The patient's healing outcome was indicated by a reduction in redness at the pedis cellulitis wound area, decreased swelling in the infected foot tissue, reduced pain during movement in the cellulitis area, and improvement in blood glucose levels. The study concludes that appropriate dietary therapy and adequate nutrient intake play a role in supporting the healing process of pedis cellulitis, although suboptimal intake levels may affect the healing outcomes.

Keywords: diabetes mellitus, healing outcomes, cellulitis pedis, dietary therapy, intake level.