CORRELATION BETWEEN BLOOD UREA AND CREATININE LEVEL IN PATIENTS WITH DIABETES MELITUS AT THE MINISTRY OF MARINE AND FISHERY CLINIC, INDONESIA

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ABSTRACT

Background: The most frequent microvascular complications in patients with diabetes mellitus (DM) is diabetic nephropathy. Worldwide, diabetic nephropathy is the most common cause of end-stage renal disease worldwide and a major cause of morbidity and mortality in DM patients. Urea and creatinine examinations are performed to find out kidney damage in patients with DM. This study aimed to report the correlation between blood urea and creatinine level in patients with DM at the Ministry of Marine and Fishery Clinic.

Subjects and Method: This was a cross-sectional study conducted at the Ministry of Maritime Affairs and Fisheries Clinic in August 2019. A total of 155 patients with DM with laboratory tests of urea and creatinine blood was selected for this study. The variables tested were blood urea and creatinine levels. The data of blood urea and creatinine levels were collected from medical records in a year period from January to December 2018. The data were analyzed using Spearman Rank correlation test.

Results: There was a positive correlation between urea and creatinine levels in the blood in DM patients ($r = 0.44$; $p < 0.001$).

Conclusion: There is a positive and moderate association between blood urea and creatinine in DM patients.

Keywords: diabetes mellitus, urea, creatinine

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