

# SERUM PHOSPHATE AND ALBUMIN ARE ASSOCIATED WITH THE ONSET OF FIRST PERITONITIS

Ana Koroša, Robert Ekart

University Clinical Centre Maribor

Clinic for Internal Medicine

Department of Dialysis

Maribor, Slovenia

## Introduction

The purpose of our study was to analyse the association between different clinical factors and biochemical values and peritonitis in patients treated with peritoneal dialysis (PD).

## Methods

In our retrospective, a single-centre study we analysed 53 patients, aged 15 to 67 years who have started PD treatment in the period from May 1998 to November 2016. We examined the biochemical values and clinical characteristics of patients at the beginning of the PD treatment and their association with the occurrence of first peritonitis. In the observational time of 1.615 months (1–124months, mean $30.5\pm 31$  months), 15 patients (28.3%) developed peritonitis (peritonitis group).

## Results

Patients in peritonitis group had higher levels of serum phosphate ( $1.85\pm 0.45$ mmol/L vs  $1.53\pm 0.38$ mmol/L,  $p=0.012$ ) at the start of PD treatment. Using independent sample T-test, we did not find statistically significant differences between both groups in age, serum creatinine, albumin, hemoglobin, calcium, potassium, eGFR and iPTH. With multivariate regression analysis peritonitis as a dependent variable turned out to be statistically significantly associated with phosphate ( $p=0.004$ ) and serum albumin ( $p=0.02$ ). The average time to the occurrence of first peritonitis in all patients was 77.4 months (95% CI [59.7- 95]). Patients with normal serum phosphorus at the start of PD treatment had survival time to the first episode of peritonitis 110 months (95% CI [92.1 - 127.9]), and patients with higher serum phosphate had this survival time 67.3 months (95% CI [10 - 47.7]).

## Discussion and conclusions

The results of our study demonstrated a significant effect of serum phosphate and albumin values on the occurrence of first peritonitis episode. These findings can help identify patients who start PD treatment with higher serum phosphate which have a higher risk of peritonitis.

## Correspondence

Ana Koroša, master of nursing

University Medical Centre Maribor, Clinic for Internal Medicine, Department of Dialysis,

Ljubljanska 5, 2000 Maribor

e-mail: [ana.korosa@gmail.com](mailto:ana.korosa@gmail.com)

47rd EDTNA/ERCA International Conference, September 15th - 18th, 2018 – Genoa, Italy