

## Abstract

High levels of phosphorus, hyperphosphatemia, are a serious problem in the treatment of hemodialysis patients. These patients are affected by a number of other limitations. In addition to monitoring their phosphorus levels, they must also monitor their levels of potassium, sodium, fluids and macronutrients. This often makes dieting a difficult task. If they follow this diet very strictly, they can consume a diet low in fruits and vegetables, which contributes to atherogenesis, and low in protein, which leads to malnutrition. Patients must also take a relatively large amount of medication with each meal, which can cause various dyspeptic problems in some patients. Even dialysis itself can be a very limiting element in their personal and professional lives. The result is usually patient dissatisfaction and low compliance with some recommendations. The task of the nutritional therapist is to educate patients about the balanced ratio of protein and phosphorus, to teach them about the need to use phosphate binders and to increase their health literacy about the consequences of high phosphate levels on the body. The main goal of this bachelor thesis was to investigate the effect of education on the nutritional behavior of dialysis patients with hyperphosphatemia. The study included a group of 37 chronically dialysis patients with hyperphosphatemia. Eighteen randomly selected participants were assigned to the experimental group and the rest was the control group. Participants in the experimental group completed questionnaires designed to identify, among other things, the most common eating disorders, compliance with the use of phosphate binders, and awareness of the consequences of hyperphosphatemia on the human body. Based on the analysis of the participants' responses, a nutritional intervention was planned. Participants in the experimental group received two half-hour individual training sessions on the effects of hyperphosphatemia on the human body, low-phosphate diet and the use of phosphate binders. Phosphate levels were measured in the experimental and control groups before and after the intervention. It was found that the educational intervention had a positive effect in the form of a slightly reduced level of phosphates in the amount of on average 0.31 mmol / l in 78% of respondents in the study group. It should be added that the control group also showed a slightly reduced level in a certain number of respondents, compared to the study group it was in 67% of respondents. Even such small results confirm that a better informed patient is more responsible for their health.

Key words: phosphorus, hyperphosphatemia, hemodialysis, nutritional intervention, compliance