

Abstract

Background: Heparin is a low molecular weight peptide that plays an important role in iron homeostasis in the body. The role of heparin in the pathophysiology of anemia and its complications in patients with renal impairment is unknown. Chronic renal failure and its associated anemia play a role in the development of hernias that increase mortality in dialysis patients.

Aim : This study was conducted to determine the Association of serum heparin levels and mortality in patients undergoing chronic dialysis.

Materials and methods: In the present descriptive-analytical study, which aimed to investigate the relationship between serum heparin levels and mortality in patients undergoing chronic dialysis in Ardabil in 1399. The statistical population included: patients with chronic renal failure Dialysis which were referred to Imam Khomeini and Bu Ali hospitals in Ardabil. Using simple random sampling method, 35 patients were selected to enter the study. Information required for each patient including age, sex, duration of dialysis of laboratory disorders (serum heparin level and blood markers including, TIBC Ferritin, Iron and hs-CRP and HGB) by studying patient records, asking the treating physician, and Questions were collected from the patients themselves.

Results: Serum heparin level was directly and significantly related to serum ferritin and hs-CRP levels. However, heparin had no significant relationship with age, sex, duration of dialysis, TIBC, iron and hemoglobin. There was no significant relationship between serum heparin levels in patients based on mortality. However, serum heparin levels were higher in patients in the death group than in patients who survived. In different groups of patients based on mortality, the difference between serum iron levels, TIBC and hs-CRP was significant, but this difference was not significant for serum hemoglobin levels. Mortality of patients was also significantly associated with the duration of dialysis, so that in long-term dialysis patients was more than death.

Conclusion: Although serum heparin levels and mortality of patients undergoing chronic dialysis are not significantly related, however, both of these variables are associated with some of iron indices.

Keywords: Heparin, Dialysis, Mortality