Abstract:

Background: Deep vein thrombosis (DVT) is one of the manifestations of venous thromboembolism. The mortality rate from DVT is about 6% and the mortality rate from pulmonary embolism is about 12% . The American Society of Surgeons lists pulmonary embolism as the most preventable cause of death in hospitalized patients . Therefore, early detection of DVT and its effective treatment can reduce this rate.

Aim: To determine the serum level of D-dimer associated with the occurrence of deep vein thrombosis of the lower extremities.

Matherials and Methods: A total of 96 patients were included in the study. Patients were divided into three groups. The first group of pregnant patients referred with DVT symptoms, the second group of patients with active cancer referred with DVT symptoms and the third group of patients who underwent surgery in the last 12 weeks and referred with DVT symptoms.

Result: The mean age of the first group was 28.14 years, the second group was 61.23 and the third group was 56.41. It was not possible to determine the diagnostic range of D-dimer in the group of pregnant women and the group with a history of surgery in the last 12 weeks. Regarding the diagnostic range of D-dimer in the group of patients with active cancer, from 39 patients who presented with early symptoms of DVT. In 23 cases, the definitive diagnosis of DVT was positive and in 16 cases DVT was rejected. The mean D-dimer was 421.3 in the DVT definitive group and 195.5 in the negative group. Statistical analysis by T-test showed a statistically significant difference between the two groups. Sensitivity and specificity were 82.6% and 68.7%, respectively.

Conclusion: In patients with DVT symptoms and a history of cancer, level of D-dimer can be helpful in diagnosing DVT.

Keywords: Deep vein thrombosis, D-dimer quantitative level, Color Doppler ultrasound