

***Evaluation of the effect of protamine sulfate administration after heart surgery on drainage of patient's blood secretions***

***Abstract***

***Background:*** Bleeding complication are common in cardiac surgery. Perioperative handling of heparin and protamine influence the hemostasis.

***Aim:*** Evaluation of the effect of protamine sulfate administration after heart surgery on drainage of patient's blood secretions.

***Materials and Methods:*** In this retrospective cohort study, medical records information of 120 patients from 2011 up to march 2021 how underwent heart surgery such as CABG were studied. The patients on the basis of receiving protamine sulfate in the ICU divided in two groups (60 subjects in each group) and body mass index, age, gender, ACT values and blood drainage in the two groups were compared.

***Results:*** The results of this study showed that the amount of blood drainage in the protamine group was significantly lower than the control group. There was no statistically significant difference between the two groups in terms of ACT values. The amount of blood drained in the protamine group in people with normal BMI and overweight was significantly lower than the control group. The amount of blood drainage in the protamine group in women and in people over 70 years was significantly lower than the control group.

***Conclusion:*** The results of this study showed that the amount of blood drainage in the protamine group was significantly lower than the control group. According to this study postoperative injection of protamine was able to almost eliminate the effect of heparin. Protamine injection reduced postoperative bleeding.

***Keywords:*** Cardiac Surgery, Heparin, Sulfate Protamin