

**DIAGNOSTIC POSSIBILITIES OF PERIPHERAL BLOOD ANALYSIS  
IN PREVENTION OF EARLY INFECTIOUS COMPLICATIONS  
AFTER KNEE AND HIP JOINT ARTHROPLASTY**

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**The aim of the study:** to identify the criteria for the prognosis of early infectious complications in patients with periprosthetics.

**Material and methods:** peripheral blood analysis in patients with periprosthetic infection after knee and hip joint endoprosthetics (n = 11) and without infection after knee and hip joint arthroplasty (control group) (n = 20) was conducted.

**Results:** the dynamics of neutrophile-lymphocyte status in peripheral blood and synovial fluid were studied in 11 patients with early infectious complications and compared to 20 patients without infection after knee and hip joint arthroplasty (control group). The patients with early infection showed lower level of neutrophiles in peripheral blood on 13 % before the surgery and on 5 % on the 7 day after arthroplasty as compared to those without infectious complications. The level of neutrophiles in synovial fluid was higher before arthroplasty in patients with infectious complications and did not gradually fall by the 7 and 14 days after the surgery as in patients without complications.

**Conclusions:** thus, the control of neutrophile-lymphocyte balance may contribute to the prevention of early infectious complications after hip and knee joint arthroplasty. Detection of leukocyte status allows to help in the prevention of infectious complications after the arthroplasty.