Comparison of anteromedial skin incision versus direct anterior skin incision in knee arthroplasty

Background: Knee arthroplasty with subvastus approach is technically difficult despite its many benefits, so it is not widely used by surgeons.

Aim: Comparison of anteromedial skin incision versus direct anterior skin incision in knee arthroplasty.

Meterials and Methods: This cross-sectional study was descriptive-analytical. 200 patients were studied by random sampling method. 100 patients with direct anterior skin incision and 100 patients with anteromedial skin incision were operated. Information required for each patient including age, sex, body mass index and on the results of the operation, in the period of 3 months after surgery, including the amount of postoperative pain based on the VAS scale and the range of motion of the knee joint including the amount of knee flexion and extension and the amount of bleeding and swelling of the knee after surgery and knee alignment as well as muscle strength recorded in the patient files were extracted. Data analysis was performed using SPSS software.

Results: There was no statistically significant difference between the two groups of patients in terms of variables of muscle strength and postoperative swelling. But there was a significant difference in terms of other variables. In the anteromedial skin incision group, the range of motion of the knee joint including flexion and extension movements was higher and in terms of bleeding and postoperative pain was higher in the direct anterior skin incision group. On the other hand, the parameters related to knee alignment (FTA - MPTA - LDFA) before surgery were not related to any of the results of knee replacement surgery.

Conclusion: The use of anteromedial skin incisions has several advantages over direct anterior skin incisions in knee replacement surgery. But the parameters related to preoperative knee alignment were not related to any of the results of knee replacement surgery.

Keywords: direct anterior skin incision, anteromedial skin incision, , total knee arthroplasty.