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Intra-articular Drain versus No Drain after Arthroscopic Anterior Cruciate Ligament Reconstruction: A Randomized Prospective Clinical Trial

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Background: A significant proportion of surgeons use intra-articular drains after arthroscopic anterior cruciate ligament (ACL) reconstruction. Recent studies have not encouraged the routine use of postoperative drain after arthroscopic surgery.

Objective: The aim of this study is to assess the validity of intra-articular drain use after arthroscopic anterior cruciate ligament reconstruction.

Setting: Orthopedic Department, Salmaniya Medical Complex.

Design: A prospective randomized study.

Method: In this study, forty consecutive arthroscopic ACL reconstruction patients were randomized alternately for either intra-articular suction drain group or nondrain group. All arthroscopic ACL reconstructions using a four strands hamstrings graft as auto graft were included in the trial. The outcome was evaluated in the first three days, first week, fourth week and eighth week. The results were evaluated through pain assessment, range of motion (ROM), and grade of haemoarthrosis¹.

Result: The two groups were comparable in surgical findings and procedures performed. In the first three days, the non-drain group used nearly double the amount of analgesia compared to the drain group. The grade of hemarthrosis was less by one grade in drain group than in non-drain group according to Coupen and Yates grading¹. However, there were no differences in pain and range of movement at week four or eight. During the study period, there were no complications in either group.

Conclusion: This study showed that pain and hemarthrosis are less in the drain group than the non-drain group. The range of movements is better in the drain group than the non-drain group in the first week.

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