

Complication Following Arthroscopic ACL Reconstruction – A 7 Years Follow Up With Special Emphasis On Arthrofibrosis

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Background And Aim

The Anterior cruciate ligament (ACL) is frequently injured and its reconstruction is among the most commonly performed orthopaedic surgical procedures. Although ACL reconstruction generally yields good results, recovery can be hampered by the development of postoperative complications. Our aim is to review complications following arthroscopic ACL reconstruction done in Hospital Raja Permaisuri Bainun and Hospital Teluk Intan with emphasis on arthrofibrosis.

Methods

Using retrospective case series medical records of 200 patients who underwent ACL reconstruction surgery done between 2007 and 2014 was reviewed and follow up was available for 166 patients (83%). These data were reviewed and analysed to identify the risk factors for developing complications with emphasis on arthrofibrosis. Arthrofibrosis was defined as loss of 15 degrees or more extension with or without flexion loss compared to the contralateral knee.

Results

Eight patients (5%) developed arthrofibrosis in the post operative period. Early surgical intervention is a risk factor of developing arthrofibrosis. One patient (0.8%) developed arthrofibrosis as surgery was performed 2 weeks after trauma. Type of graft used does not have significant differences as 3 BPBT graft (5%) while 5 patients of the hamstring group (5%) developed arthrofibrosis. Meniscal procedures do not have an influence in the outcome related to risk of arthrofibrosis. Other complications encountered were local infection, hypertrophic scar, chronic regional pain syndrome.

Conclusion

The 5% incidence of arthrofibrosis following ACL reconstruction can be further reduced with proper prevention measures. This includes thorough preoperative evaluation, proper timing of surgery, proper graft selection, avoiding graft malposition/overtension, as well as aggressive postoperative physical therapy (immediate patellar mobilization, full passive extension combined with night extension bracing, ROM monitoring with judicious use of cryotherapy & NSAIDs).

Keywords

Anterior cruciate ligament reconstruction, complications, arthrofibrosis, pre operative patient selection, post operative rehabilitation