

Septic arthritis after anterior cruciate ligament reconstruction in Sweden – incidence, risk factors and outcome.

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OBJECTIVES:

Annually around 3,500 anterior cruciate ligament reconstructions (ACLR) are performed in Sweden. Septic Arthritis (SA) is a rare but serious and potentially lethal complication. In the literature incidence for SA after ACLR varies between 0.30-1.70 %. The studied populations are small and without nationwide coverage making analysis uncertain with risk of bias. Conclusions in order to recommend preventive measures are therefore difficult to make and it has not been possible to do a comprehensive risk factor analysis. Our aim was to study the incidence of SA after ACLR in a unique nation-wide population. Further we wanted to study risk factors and patient reported outcome measures (PROM) of SA.

METHODS:

We conducted a register-based cohort study based on data from the Swedish Knee Ligament Register (SKLR), the National Patient Register, the Causes of Death Register and the Swedish Prescribed Drug Register. All ACLR registered in the SKLR 2006-2013 were included and linked with data from the national registers. Outcome was any SA event within 90 days after surgery. Odds Ratios (OR) will be calculated with Logistic Regression. PROM will be analyzed with questionnaires (KOOS, EQ5D, Lysholm score and Tegner activity scale).

RESULTS:

The cohort consisted of 26,669 ACLR performed on 25,169 patients (mean age 27.2 years, 42.1% female). 325 SA events were identified (1.2%). Three cases of deaths occurred within the cohort, one with unknown cause (58 days after surgery) and two unrelated to SA. Ongoing analysis will establish potential risk factors as sex, age, BMI, smoking, concomitant procedures, operating time and type of graft. PROM will be analyzed preoperatively and at one, two and five years postoperatively.

CONCLUSION:

SA after ACLR is a rare but potentially serious complication. This study will identify risk factors and outcome of SA, making it possible to establish future prevention strategies.

KEYWORDS:

ACL reconstruction, septic arthritis, risk factors, outcome, PROM