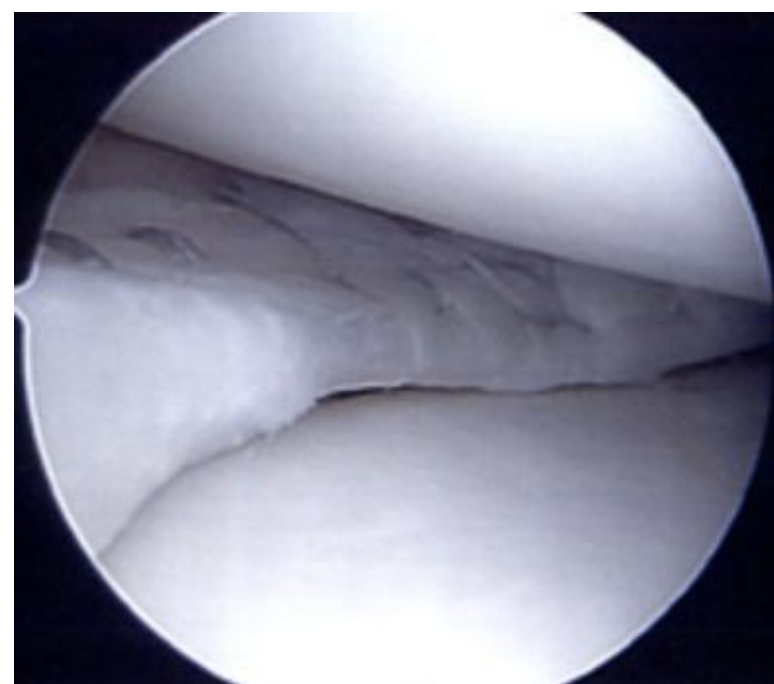
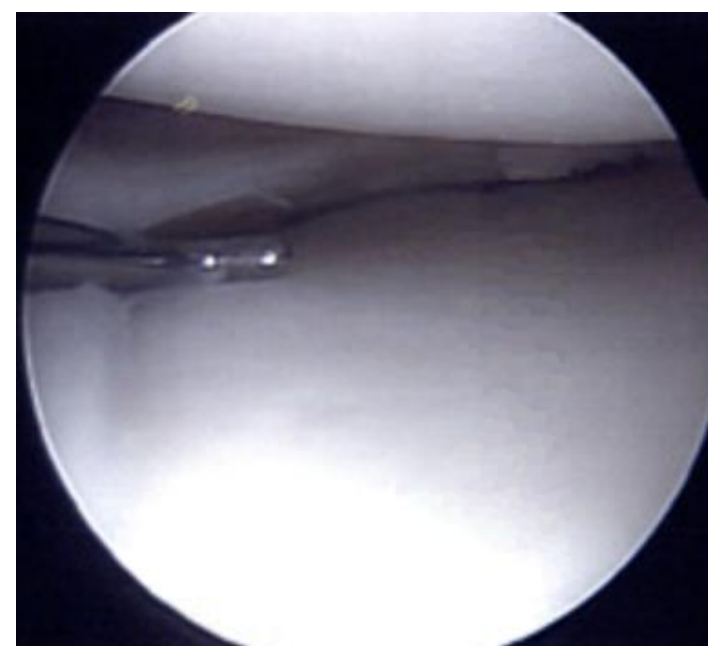


The Rate of Meniscus Tears in Association with Anterior Cruciate Ligament Injuries Increases with Age

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OBJECTIVES

Anterior cruciate ligament (ACL) tears are frequently associated with meniscal injury. Numerous authors have described associations between the presence of a meniscal tear at the time of ACL reconstruction and time to surgery and number of instability episodes¹⁻³. The purpose of this study was to evaluate the relationship between age and the presence of a meniscal tear at the time of ACL reconstruction in children and adolescents.



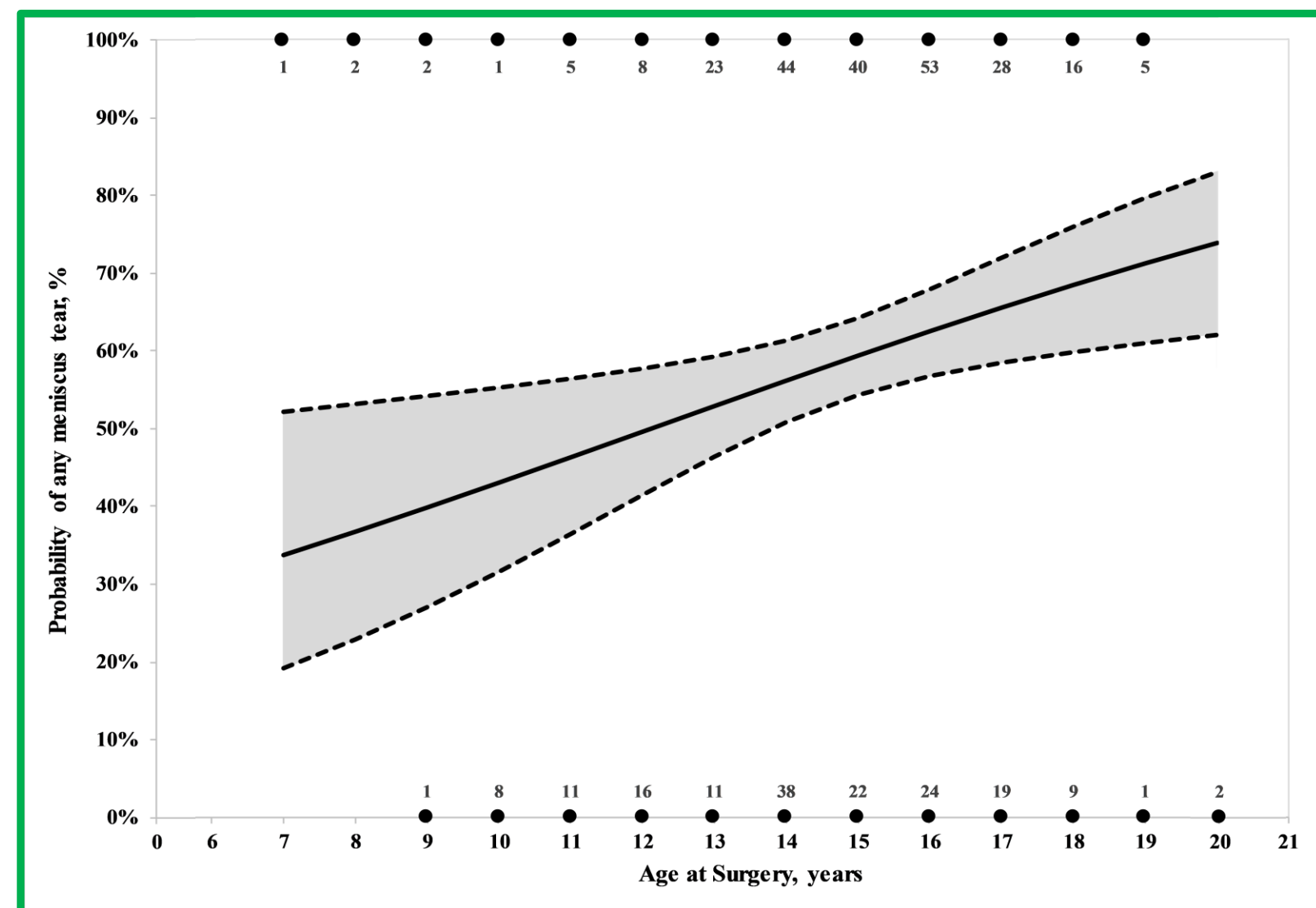
METHODS

A single-institution retrospective review was performed of consecutive pediatric and adolescent patients who underwent ACL reconstruction over a 3.5-year period at a single institution. Inclusion criteria were age less than 20 years and an ACL injury treated with knee arthroscopy and ACL reconstruction. Patients with multiligament knee injuries were excluded. A chart review was performed to obtain demographic information and intra-operative findings. Meniscus tears were defined as tears documented during diagnostic arthroscopy.

RESULTS

461 patients met inclusion criteria, including 226 males (49%) and 235 females (51%) with a mean age of 15 years (range 7 – 20 years). The right and left knees were affected equally. 270 patients (80%) had intra-operative evidence of a meniscal tear, including 215 lateral meniscus tears (56%) and 119 medial meniscus tears (44%). Sixty-four patients (14%) had both medial and lateral meniscus tears.

Age at surgery was found to be a statistically significant independent predictor of the presence of a meniscus tear, odds ratio=1.14, 95% CI (1.05 – 1.25), p=0.003. For every 1-year increase in age, there is a 14% increase in the odds of having a meniscus tear and this is depicted in the figure below.



DISCUSSION

Among children and adolescents with anterior cruciate ligament tears, for every 1-year increase in age, there is a 14% increase in the odds of having a meniscus tear. Adolescents over the age of 13 years had a significantly greater rate of meniscus tears than did those 13 years of age and younger. A complete arthroscopic examination with close attention to the menisci is required to diagnose and treat meniscal tears. Surgeons should be comfortable with all meniscus repair techniques, including inside-out, outside-in, all-inside, radial, and transosseous root repairs as the majority of children and adolescent patients with ACL tears also have an associated meniscus tear.

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