**TITLE:** Outcomes of combined anterior cruciate ligament and posterolateral corner reconstructions versus isolated anterior cruciate ligament reconstruction with at least two year follow-up

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**INTRODUCTION:** The incidence of a posterolateral corner (PLC) injury in the setting of an anterior cruciate ligament (ACL) deficient knee ranges from 7.4-13.9%. The outcomes of combined ACL/PLC reconstruction of the knee have been hypothesized in the literature to be poor when compared to isolated ACL reconstruction. However, there is a lack of evidence to prove or disprove this hypothesis. We set out to answer the question: in an active duty military population, do patients with a combined ACL/PLC reconstruction have worse outcomes than patients undergoing an isolated ACL reconstruction?

**METHODS:** We performed a retrospective review at our institution on all patients who underwent combined ACL/PLC reconstruction from the years 2010-2016. Patients were excluded if they had posterior cruciate ligament tears, medial collateral ligament tears that required reconstruction, or had multi-system trauma with additional injuries that would negatively affect their ability to rehabilitate their knee. A comparison group of patients undergoing an isolated ACL reconstruction during this same time period was created. Each patient was asked to answer the following questionnaires: Medical Care Satisfaction score, Visual Analog Scale (VAS), and Single Assessment Numerical Evaluation (SANE). Patients were also asked if they required any revision surgeries and if they required a medical evaluation board (MEB) because of their knee. The resultes of the two groups were then compared.

**RESULTS:** There were 17 patients that met inclusion criteria who underwent combined ACL/PLC reconstruction. A comparison group of 34 isolated ACL reconstruction patients was matched for age, sex, date of surgery, and meniscus and/or cartilage injury. Patients with isolated ACL reconstruction returned to duty 2 months faster than patients in the combined ACL/PLC group. There was a trend towards combined ACL/PLC patients being less satisfied, feeling less normal, and being in more pain. 31% of patients required a medical evaluation board for their knee in the combined group, compared to 16% of the isolated ACL reconstruction group.

**DISCUSSION/CONCLUSION:** Patients who require combined reconstruction of ACL/PLC have a significantly longer recovery period, with a trend towards their knee feeling less normal, having more pain, and being less satisfied with their knee.