

Practice Patterns for the Treatment of Recurrent Patellofemoral Instability: A Review of the American Board of Surgery Database

BACKGROUND:

In recent years, the surgical treatment of recurrent patellofemoral instability has evolved. The medial patellofemoral ligament (MPFL) has been shown to be essential for stability of the patellofemoral joint and there has been increasing interest in MPFL reconstruction as the procedure of choice in these situations. The purpose of this study was to identify trends in practice patterns for the surgical treatment of recurrent patellofemoral instability over time and in relation to location of practice, fellowship training and surgeon subspecialty.

PURPOSE/HYPOTHESIS:

The purpose of this study was to utilize data from the American Board of Orthopaedic Surgery (ABOS) database to investigate: (1) current treatment trends in patellofemoral instability vs past years (2) the variations in treatment based on regions in the United States and (3) procedures preferred by the surgeon based on fellowship training.

METHODS:

During Board certification, candidates for the Part II Oral examination submit a six-month surgical case list and patient data to a secure database. In this study, we searched the American Board of Orthopaedic Surgery Part II database to: 1) detect changing patterns of care for recurrent patellofemoral instability and 2) to identify available outcomes and associated complications of operative treatment for patellofemoral instability. The database was searched for all cases of patellar dislocation or instability (International Classification of Diseases, Ninth Revision, code 718.36, 718.86 or 836.3) over a 12-year period (1998-2010). The procedures were categorized with the use of surgeon self-reported surgical procedure (CPT) codes. Comparisons of percentage treatment type by year were made as well as by geographic region and fellowship training.

RESULTS:

Between 1998 and 2010, 2365 surgical procedures were performed for patellofemoral instability, of which 258 included MPFL reconstruction. There were significant differences in treatment with respect to year, geographic region of practice and fellowship training ($p < 0.001$). There was a significant increase over time in the number of MPFL reconstructions performed among all candidates, both as an isolated procedure as well as with additional procedures on the operated knee ($p < 0.001$). MPFL reconstruction was performed in between 1-2%

of instability procedures in the years from 1998-2001, whereas in the years from 2008 to 2010, it was performed in between 23%-48% of patellofemoral instability procedures ($p<0.001$). Surgeons with sports medicine fellowship training or a sports medicine-declared subspecialty performed significantly more MPFL reconstructions than all other candidates ($p<0.001$).

CONCLUSION:

From 1998 to 2012, there was a significant shift towards MPFL reconstruction for the surgical treatment of recurrent patellofemoral instability throughout the United States. Sports medicine fellowship-trained surgeons performed MPFL reconstruction more frequently than surgeons with other fellowship training. These findings are consistent with recent literature and continued evidence of the MPFL's importance in patellofemoral joint stability.

STUDY DESIGN: Cross-Sectional, Level 3

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