Arthroscopic Surgery for Posterior Shoulder Instability in Throwing Athletes

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Summary:
As for treatment of posterior shoulder instability in throwing athletes, careful management is necessary because of high recurrence.

Abstract:
BACKGROUND;
As we know, Posterior shoulder instability is uncommon. Because of the difficulty in establishing a diagnosis and an instability classification system, accurate diagnosis and successful treatment remain challenging. Especially in thrower’s dominant arm, complete return to sports activity needs enough stabilization and range of motion. In this study, our objective is to evaluate the clinical results of arthroscopic surgery for posterior shoulder instability in thrower’s dominant arm.
MATERIALS AND METHODS;
From 2007 to 2013, we treated 20 cases in throwing athletes. Among them, we investigate 18 cases which is follow-up period more than 2 years. 18 cases were consist of 16 male and 2 female. Average Age at operation was 23.2 years old. Their sports was Baseball player were 14 and Softball player was 4 case. Their position were 9 cases were Pitchers, 9 cases were field players. Their performance level was professional player were 3, college player were 7, high-school player were 4, recreation level were 4 cases. Preoperative Jerk test was positive in all case. As for our operative procedure, if there was no labrum tear, capsular plication with sutures only was selected. If Labrum tear was exists, capsule-labral sutures with anchors was selected and if remain patulous capsule, interval plication sutures was added. Postoperative 5 months shadow pitching and throwing was started. Return to the game was permitted Postoperative 8 months. Clinical outcome was evaluated according to the Japanese shoulder society shoulder instability score and Post-op. Recurrence, apprehension sign, ROM, Complication, Return to sports activity
RESULTS;
The average postoperative JSS-Shoulder instability score improved from 61.3 to 87.5 points at postoperative 1 year, but score was decrease 84.5 points at preoperative 2 years, 82.4 points at final follow up. Posterior jerk was 1 case (7%) at postoperative 1 year, but increase to 32% at final follow up. Similarly, Posterior apprehension was 1 case (7%) at postoperative 1 year, but increase to 38% at final follow up. Post-op. pain and complication was none but 3 cases had limited of range of motion. As for return to sports participation, return rate was 78% at postoperative 1 year, but 58% at final follow up.
DISCUSSION;
In our case, poor cases as for Return to sports were 7 cases (38%). The cause of poor results were pitchers and Post-op. Limited range of motion which not reach to preoperative level or not strongly swung in game. Another cause of poor results were considered trauma history, too looseness which was positive of bilateral. Post jerk test and Sulcus sign and capsular plication with sutures. In severe looseness shoulder, there was no indication of arthroscopic surgery.
CONCLUSION:
Clinical results of Arthroscopic surgery for posterior shoulder instability in throwing athletes was evaluated. Recurrent ratio at final follow up was 32%. Return to sports participation was 78% at postoperative 1 year, but 58% at final follow up. As for treatment of posterior shoulder instability in throwing athletes, careful management is necessary because of high recurrence.