Comparative Study Between Remnant Preserving Vs Remnant Sacrificing Rotator Cuff Repair

Jong-Hun Ji, Prof, KOREA, REPUBLIC OF
Kwang-Sup Kim, MD, KOREA, REPUBLIC OF

Daejeon St. Mary’s hospital, Catholic university of Korea
Daejeon, Daejeon, KOREA, REPUBLIC OF

Summary:
Clinical outcomes of remnant preserving VS remnant sacrificing repair techniques were statistically no differences in the scoring system and range of motion. However, the incidence of the good tendon quality after cuff repair was higher in the remnant preserving group.

Abstract:
Comparative study between remnant preserving VS remnant sacrificing rotator cuff repair

Among some cases of the full thickness rotator cuff tears, the remnants of torn rotator cuff were still present on the footprint of the greater tuberosity. Many surgeons tried to remove all the cuff remnants of the greater tuberosity and repair the retracted cuff to the bare greater tuberosity. The purpose of this article is to report the clinical outcomes of the remnant preserving repair technique in the small to medium sized rotator cuff tears.

Between April 2008 and May 2015, 127 patients who had small to medium sized rotator cuff tears with cuff remnants of the footprint at least 1cm width had an arthroscopic suture bridge rotator cuff repair performed by the senior author. Group I included the group with cuff remnant preserving technique and group II included the repair group with cuff remnant sacrificing technique and decorticated greater tuberosity. The outcome measurements included respectively UCLA, ASES, KSS, SST, CSS for subjective and objective satisfaction measurement and MRI at 6, 12th months after operation. Also we evaluated the retear rate and tendon quality (good quality: Sugaya’s classification 1,2 grade and poor quality : 3,4,5 grade).

In group I, KSS, UCLA, ASES, SST, CSS was increased from 56.6, 19.6, 53.4, 5.4, 62.7 preoperatively to 86.7, 31.3, 86.2, 10, 74.3 postoperatively at 1 years, and in group II, from 53.6, 18, 47.0, 4.9, 62.7 to 87.5, 31.5, 87.3, 10.2, 88.3 at 1 years. There was no differences between 2 groups in the ROM. The post-operative MRI demonstrated that retear rate by Sugaya’s classification(G4,5 as retear) was no differences (p>0.05). Good quality (Sugaya grade 1 and 2) was higher in the remnant preserving repair group than the remnant sacrificing group (70% vs 54%) (p<0.05).

Clinical outcomes of remnant preserving VS remnant sacrificing repair techniques were statistically no differences in the scoring system and range of motion. However, the incidence of the good quality tendon after cuff repair was higher in the remnant removing group. Therefore, If there are relative fresh remnants on footprint through arthroscopic examination, the remnant preserving repair technique could be considered. Remnant preserving repair technique could reduce the tension mismatch of the repaired tendon and also increase repair tendon integrity and quality. These could a good choice for small to medium size tear with footprint remnant at least 1cm width.