How Do Slap-Repairs Compare with Bankart Repairs? A Case Control Study of 200 Consecutive Labral Repairs

Pieter S.W.A. Haen, MD, NETHERLANDS
Patrick H. Lam, PhD, AUSTRALIA
Andrew D.J. Mckeown, Medical Student, AUSTRALIA
George A. Murrell, MD, PhD, AUSTRALIA

Orthopaedic Research Institute, St George Hospital
Kogarah, New South Wales, AUSTRALIA

Summary:
The labral tear location is important in the short-term outcomes of an arthroscopic stabilisation of the shoulder. A SLAP-repair combined with a Bankart repair had similar, excellent, outcomes as a Bankart repair. An isolated SLAP-repair performed worse than a Bankart ± SLAP

Abstract:
BACKGROUND
Our uncontrolled observations were that stiffness and pain are often problematic after superior labral (SLAP) repair.

AIM OF STUDY
To determine the effect of the location of labral tear on surgical outcomes of arthroscopic labral repair, particularly with respect to early postoperative pain and stiffness

MATERIALS & METHODS
Consecutive patients with a primary arthroscopic labral repair by a single surgeon using PEEK knotless anchors (Pushloc, Arthrex, Naples, Fl) were assessed with the use of patient-reported pain scores, shoulder functional scores, and shoulder range of motion at the pre-operative evaluation and at six weeks, three months and six months after surgery. Post-hoc the patients were divided into three groups: Bankart, SLAP, and combined SLAP and Bankart. Our primary outcome was early postoperative examiner determined range of motion. Our secondary outcomes were patient-reported pain and function.

RESULTS
There were 53 patients in the Bankart group, 33 patients in the SLAP-group, and 40 patients in the combined Bankart-SLAP group. No differences in demographics, pre-operative range of motion and patient-reported scores, and postoperative range of motion and patient-reported scores were found between the Bankart and the combined Bankart-SLAP group. For subsequent analyses, therefore, these two groups were combined into a Bankart ± SLAP group (93 patients). There were significantly more workers compensation cases (WC) in the SLAP-group compared to the Bankart ± SLAP group (49% vs 21%, p<0.002). Pre-operative the SLAP-group had less internal and external rotation (46 ± 21 vs 59 ±21 (mean±SD)) compared to the Bankart ± SLAP group (p<0.01). Postoperative internal rotation was also less in the SLAP group (p<0.001). Postoperatively, patients in both groups improved with respect to pain and satisfaction. Patients in the SLAP-group improved to moderate regarding pain and stiffness (p>0.01), and instability patients improved to mild-none (p < 0.001). Multiple linear regression analyses showed a loss of internal rotation correlated with postoperative pain and stiffness (r=0.4). Workers compensation was associated with more pain, more stiffness and less satisfaction in the SLAP-group (r=0.4).

CONCLUSION
This study did show that labral tear location was important in the outcomes of arthroscopic stabilisation. A SLAP-repair combined with a Bankart repair had similar, excellent, outcomes as a Bankart repair. An isolated SLAP-repair
performed worse than a Bankart ± SLAP repair, particularly in patients with a workmans compensation claim and/or pre-operative limitation of internal rotation. While pain and stiffness did improve after an isolated SLAP-repair, patients with an isolated SLAP lesion had more pain and stiffness from six weeks to six months post repair than patients who had Bankart lesions stabilised.