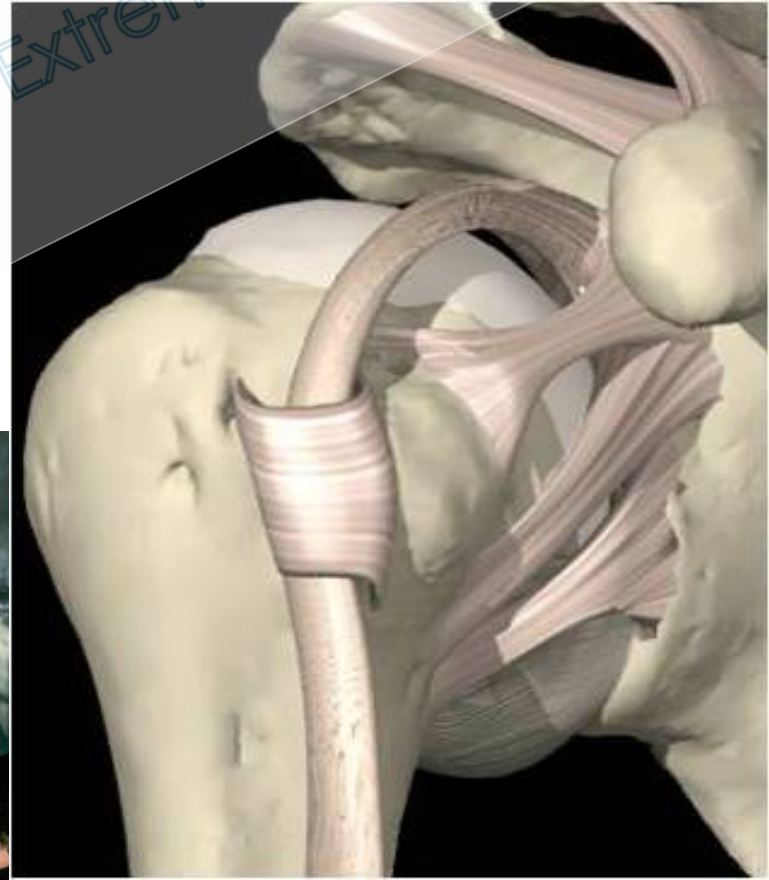


„Superior Labrum, anterior to posterior“-Lesion (SLAP-Lesion)

- Injury of the cranial labrum and biceps tendon insertion
- Shoulder stabilization in abduction and external rotation



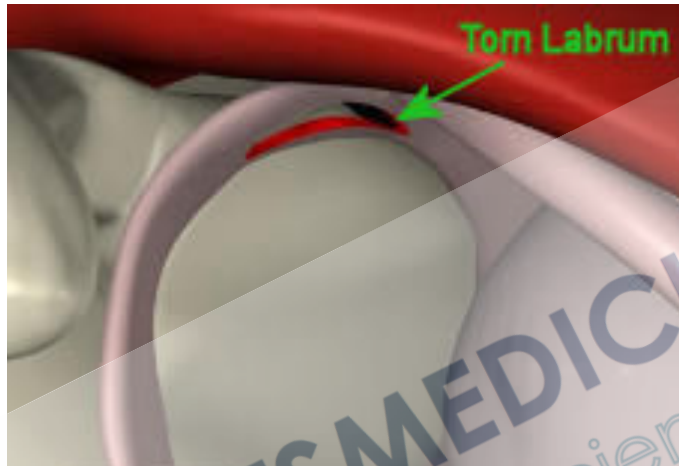
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SLAP-Lesion: acute

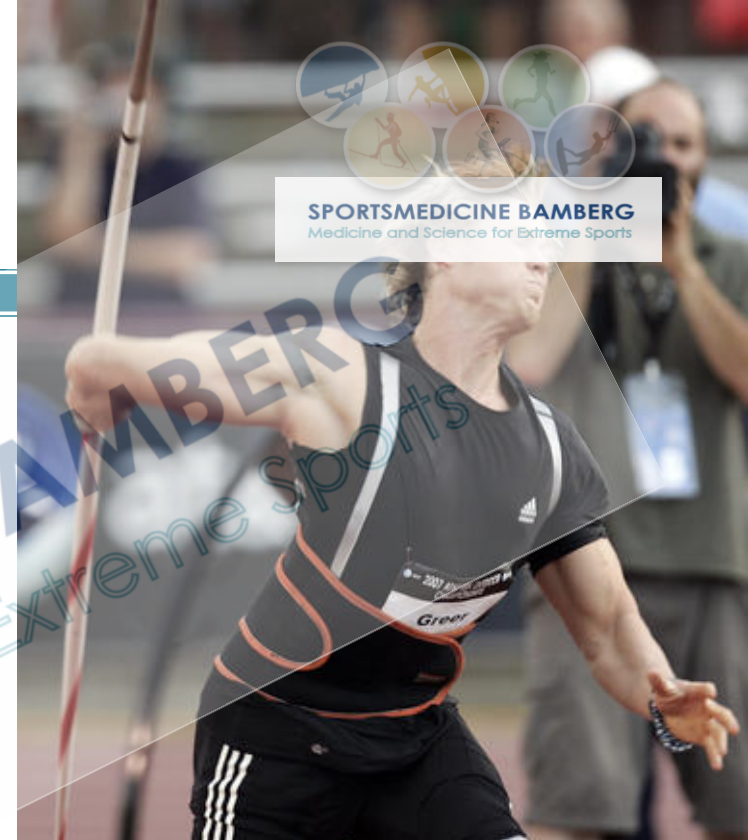
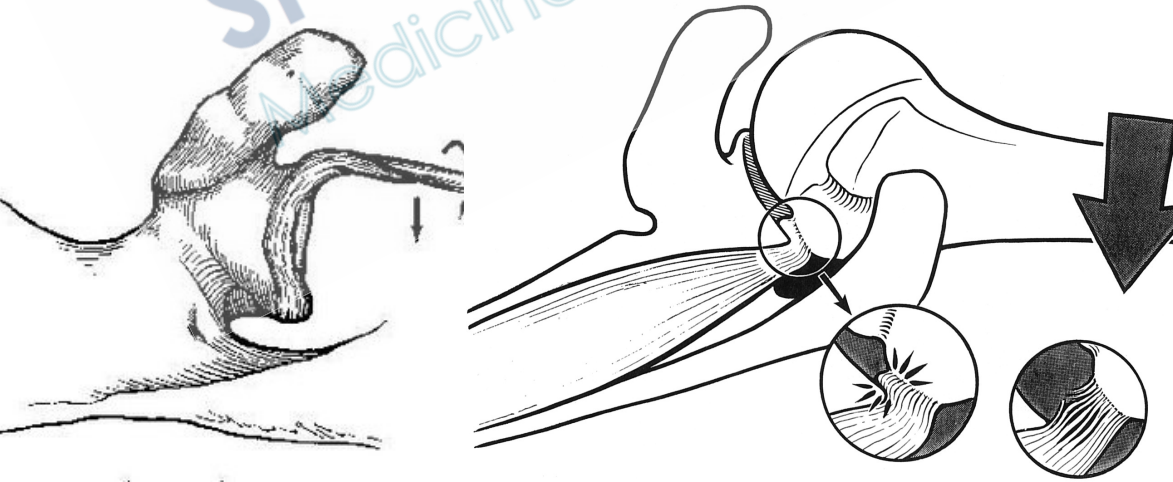


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SLAP-Lesion: chronic

- „peel-back“-mechanism
Kuhn et al. 2005
- „pseudolaxity“-mechanism
Burkhart et al. 2003

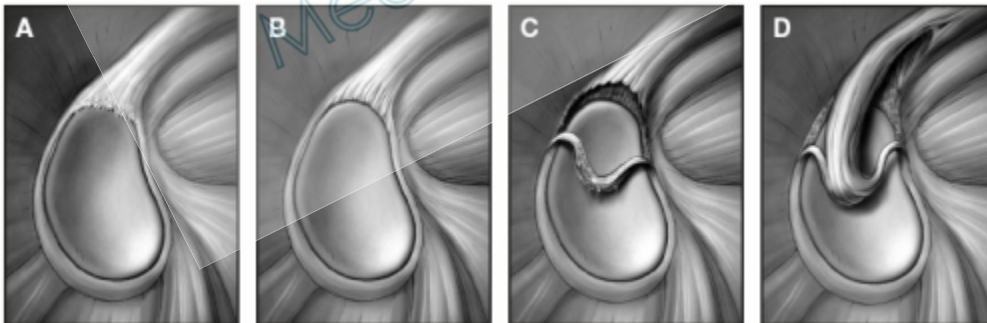
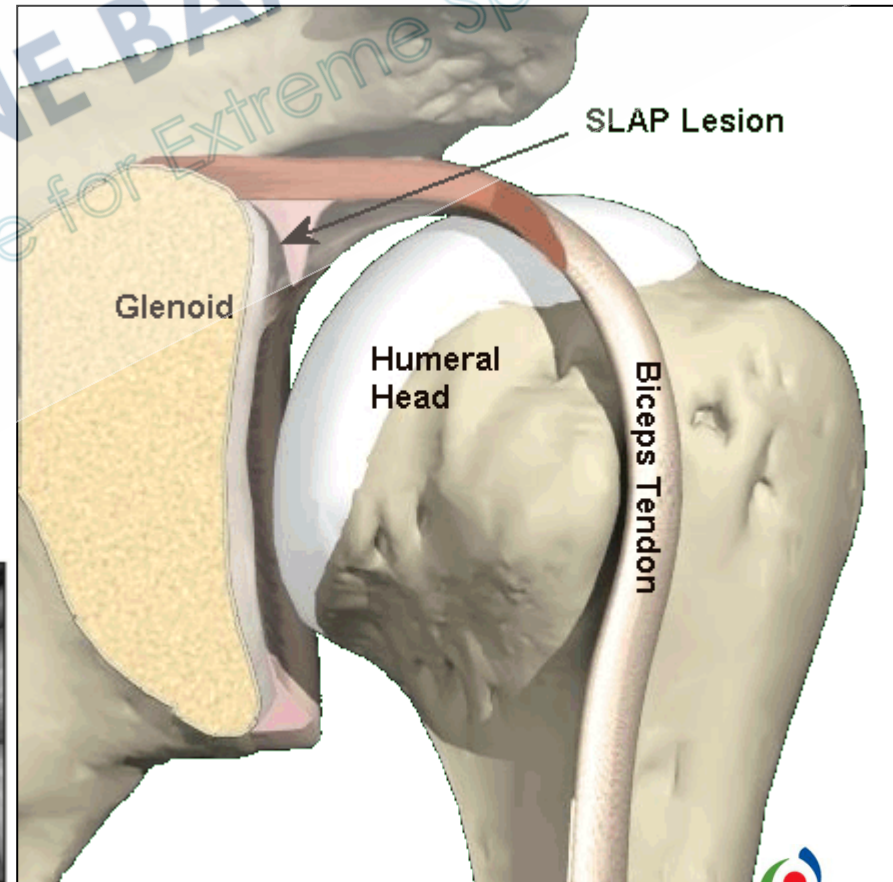


SLAP-Lesion: chronic



Classification

Snyder (1990): SLAP I - IV

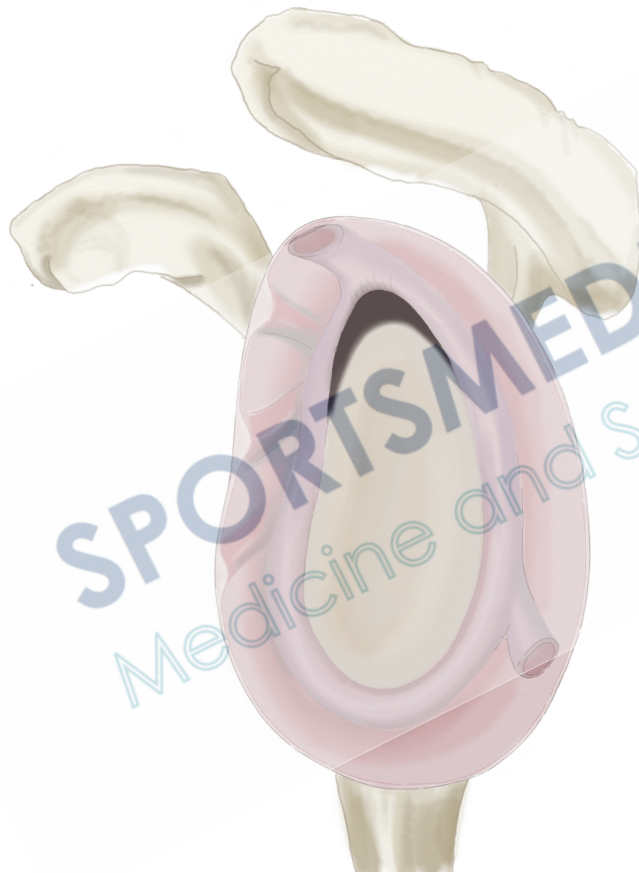


SLAP I degeneration, partial tears, no complete tear



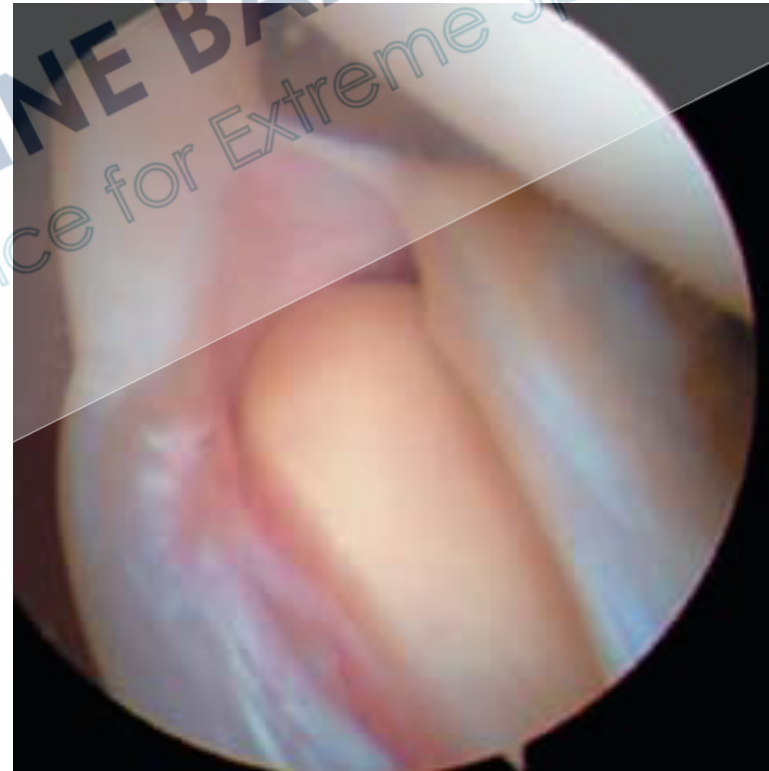
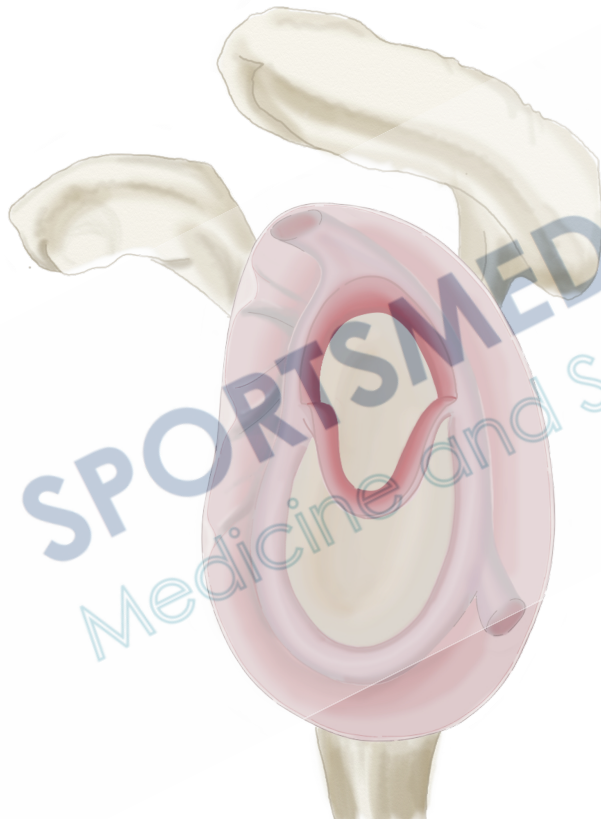
Popp, Schöfl in Engelhardt et al. „Die Sportlerschulter“ 2015

SLAP II complete tear



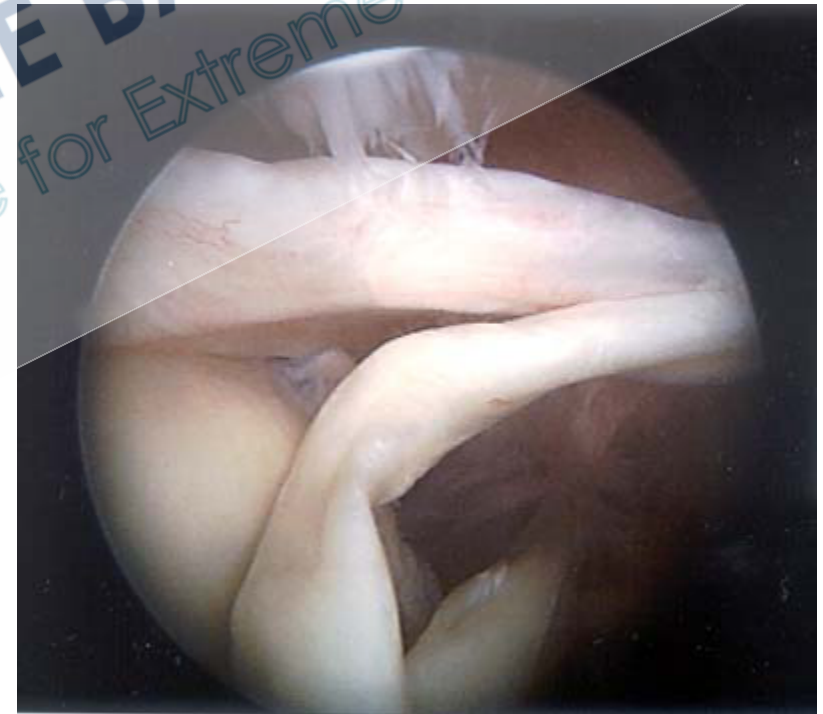
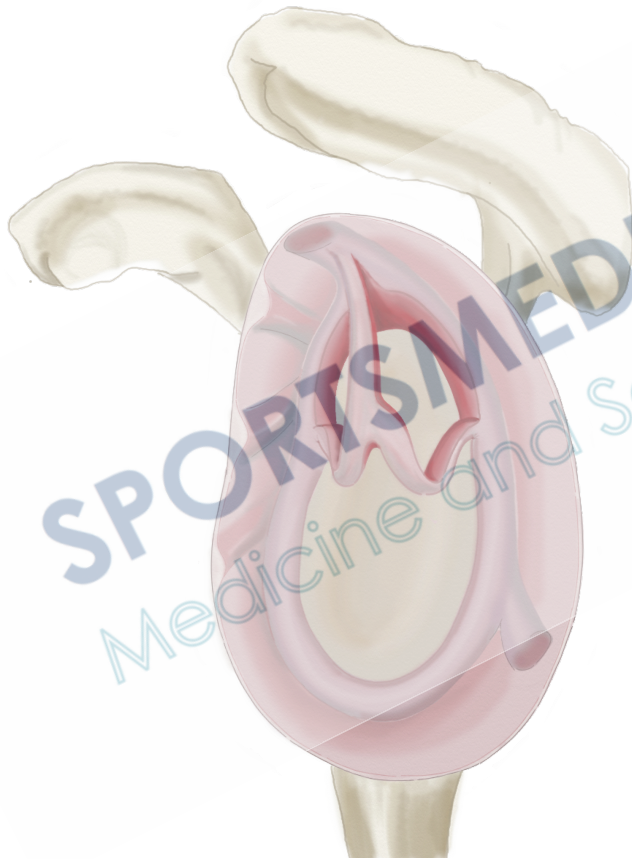
Popp, Schöfl in Engelhardt et al. „Die Sportlerschulter“ 2015

SLAP III bucket handle tear



Popp, Schöfl in Engelhardt et al. „Die Sportlerschulter“ 2015

SLAP IV longitudinal tear of long biceps tendon with dislocation into the joint space



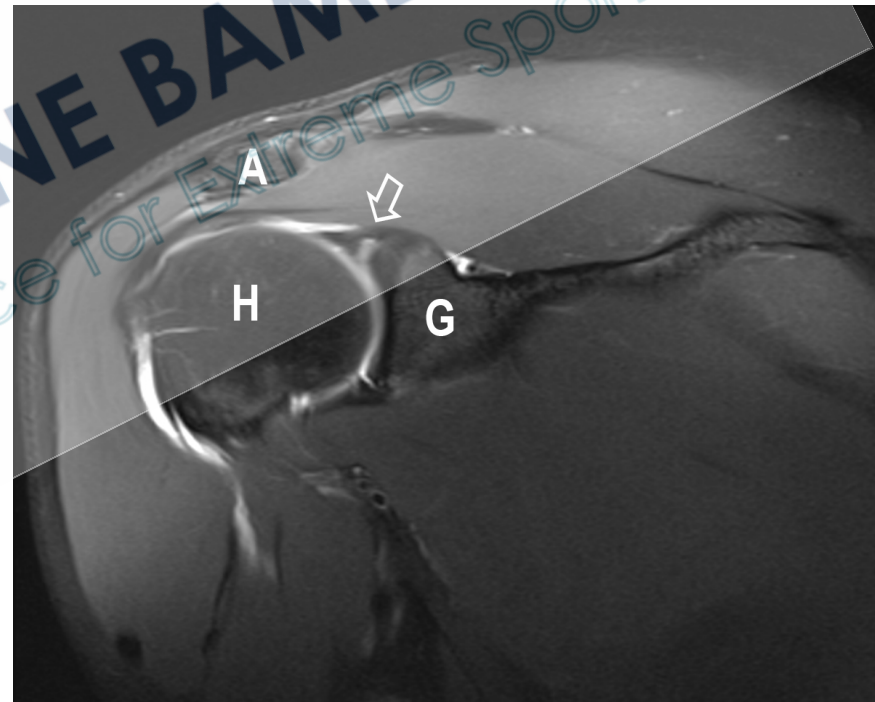
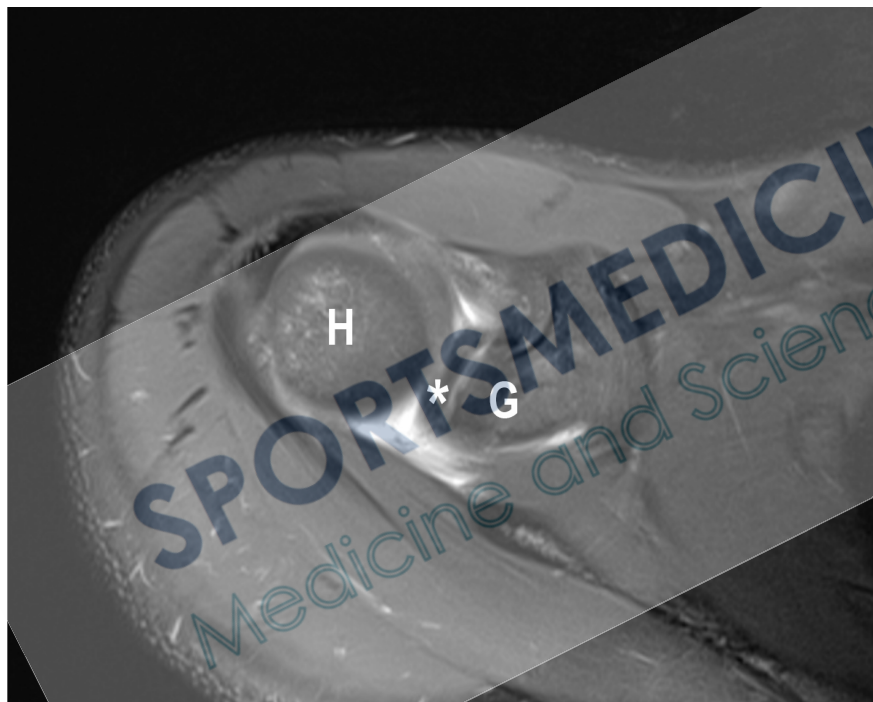
Popp, Schöfl in Engelhardt et al. „Die Sportlerschulter“ 2015

Diagnosis

- | | |
|------|---|
| 1931 | Yergason-Test [61] |
| 1990 | Relokationstest nach Jobe [23,31] |
| 1995 | Anterior-Slide-Test nach Kibler [34]
SLAP-Prehension-Test nach Berg und Cuillo [6,7] |
| 1996 | Crank-Test [39] |
| 1998 | Speed-Test nach Bennett [5]
O'Brien-Test [45]
Sulcusschmerz nach Morgan [42] |
| 1999 | Biceps-load-Test I nach Kim [35] |
| 2001 | Biceps-load-Test II nach Kim [36] |



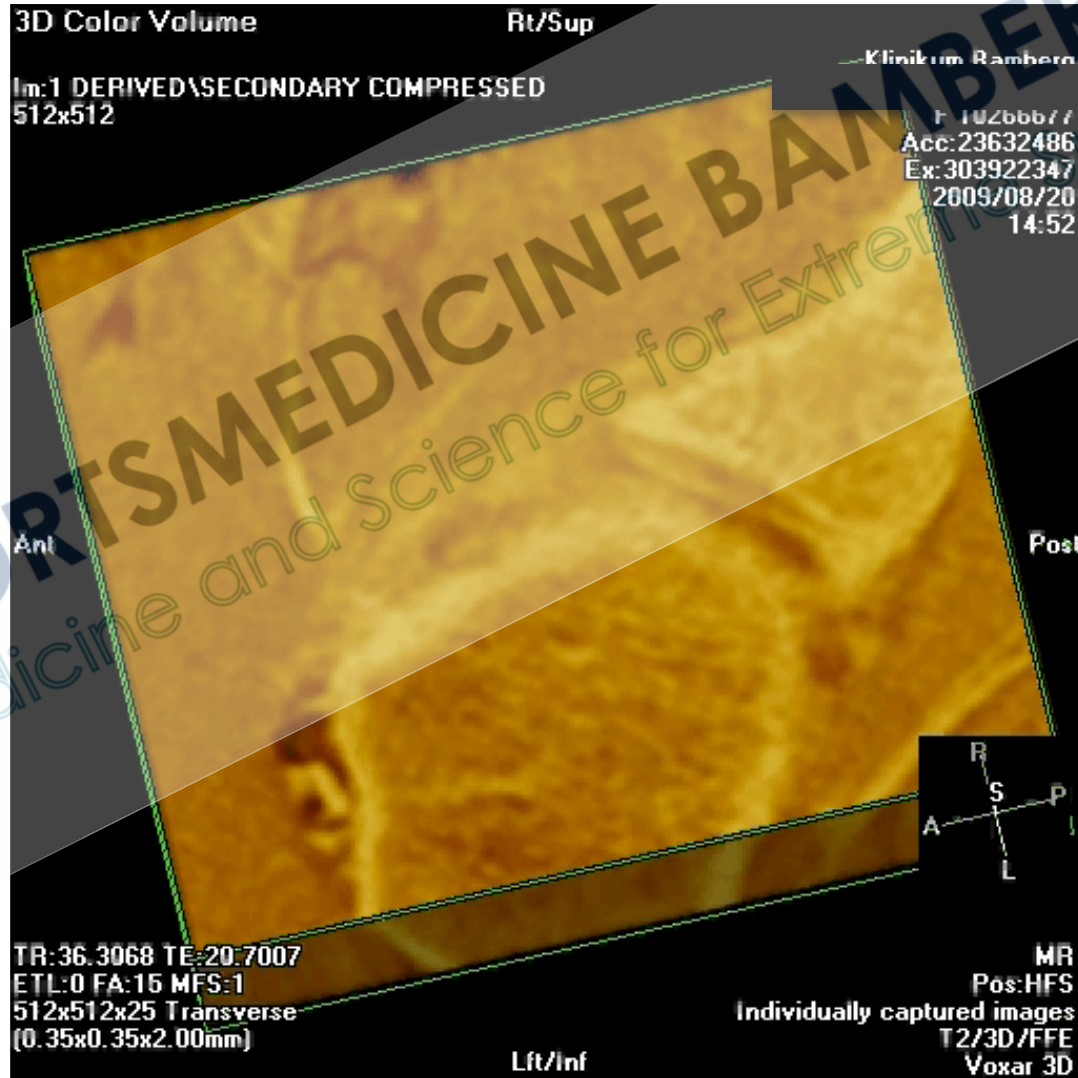
Diagnosis: MRI / Arthro-MRI



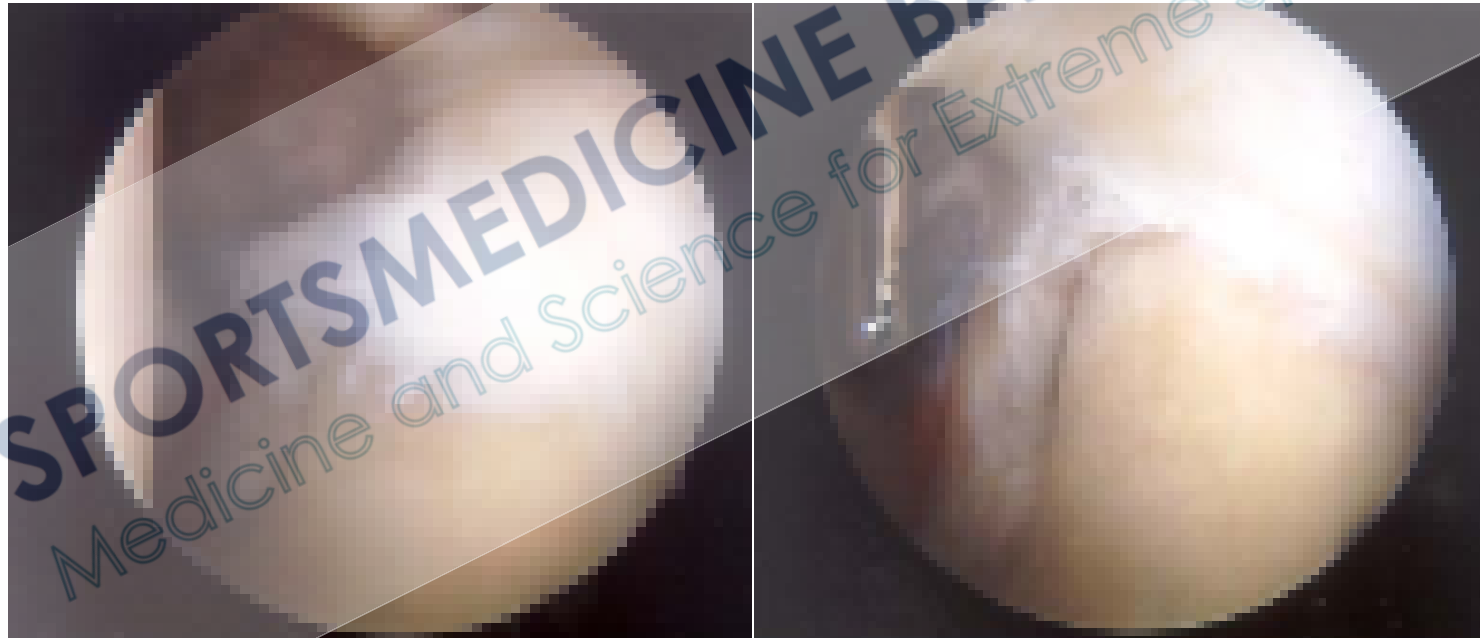
Diagnosis: MRI / Arthro-MRI



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Therapy SLAP I: conservative or surgical partial excision

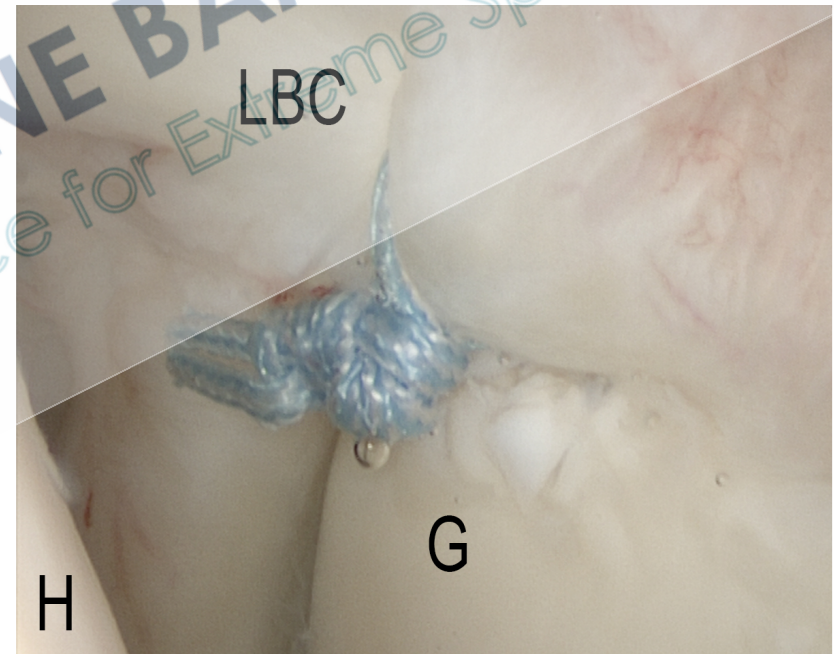


[World J Orthop.](#) 2015 Oct 18;6(9):660-71. doi: 10.5312/wjo.v6.i9.660. eCollection 2015 Oct 18.

Superior labral anterior posterior lesions of the shoulder: Current diagnostic and therapeutic standards.

Popp D¹, Schöffl V¹.

Therapy SLAP II: surgical: refixation +/- primary long biceps tenodesis



Clin J Sport Med. 2011 May;21(3):261-3. doi: 10.1097/JSM.0b013e31821a61e3.

Superior labral anterior-posterior lesions in rock climbers—primary double tenodesis?

Schöffl V¹, Popp D, Dickschass J, Küpper T.

SLAP II injuries in climbers: Therapy and outcome

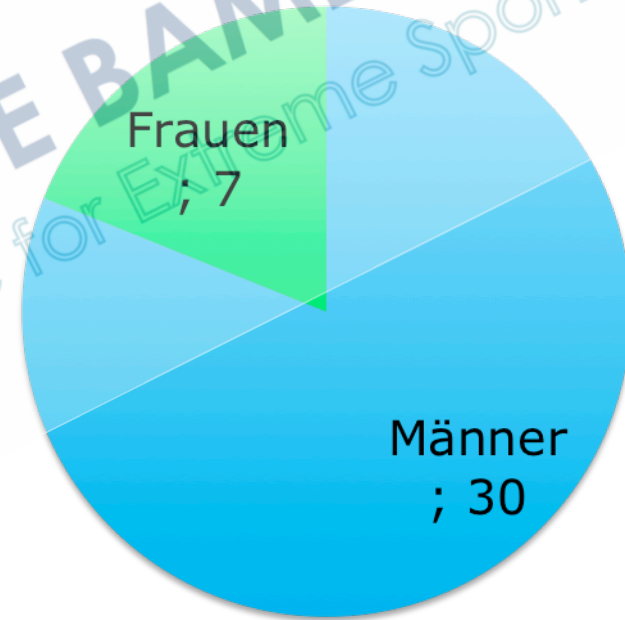
Primary long biceps tenodesis as treatment for high grade SLAP lesions: Clinical evaluation in rock climbers

B. Ott¹, D. Popp², I. Schöffl³, T. Küpper⁴, F. Hennig¹, V. Schöffl^{1,2}



Primary long biceps tenodesis in overhead athletes with SLAP tears

- 37 patients
 - 30 male
 - 7 female
- 28 - 64 y
 - mean 45.3 y
- 30 climbers
- 6 swimmers
- 1 skettler (bowler)



Primary long biceps tenodesis as treatment for high grade SLAP lesions: Clinical evaluation in rock climbers

Primary long biceps tenodesis in overhead athletes with SLAP tears

- All patients received a primary long biceps tenodesis.
 - 1.1.2008 - 30.4.2014
- Follow-up: 12 – 70 month post surgery



Primary long biceps tenodesis as treatment for high grade SLAP lesions: Clinical evaluation in rock climbers

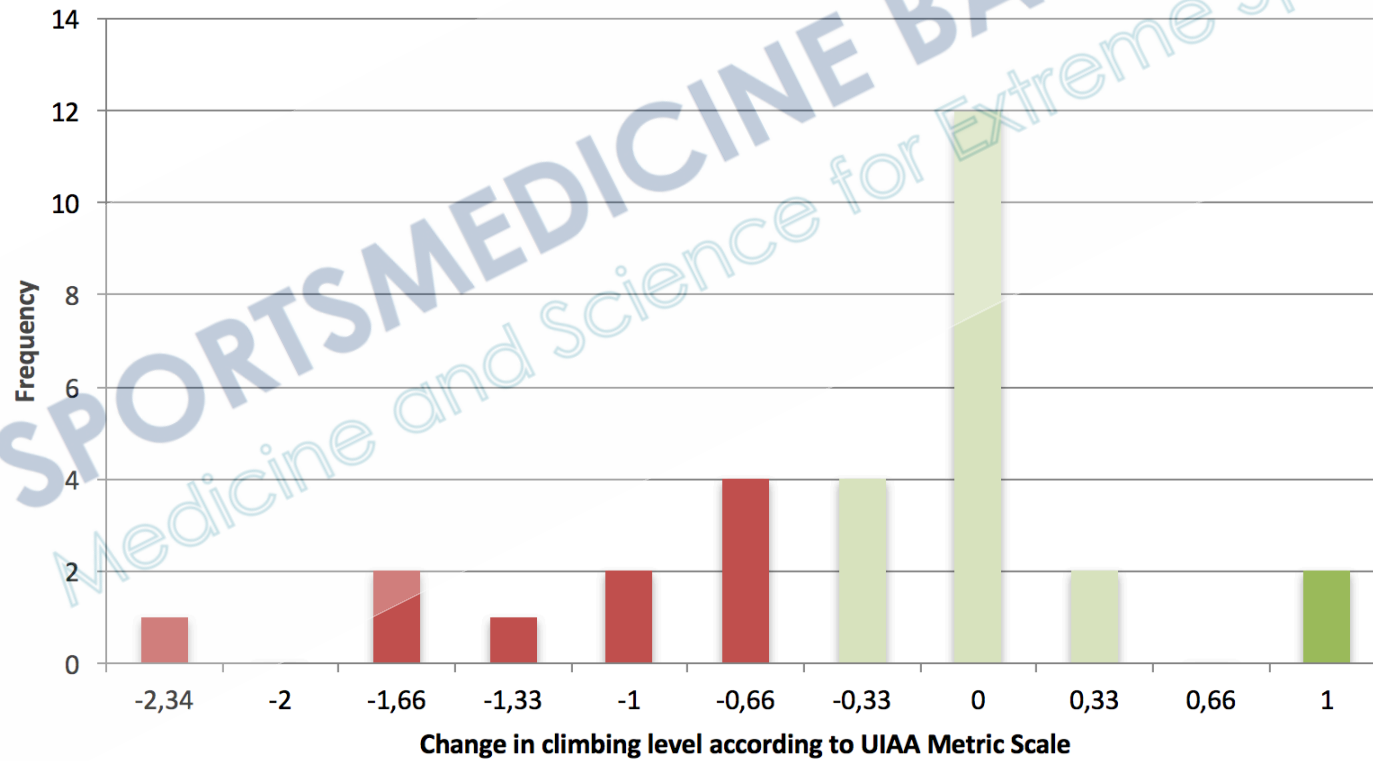
Primary long biceps tenodesis in overhead athletes with SLAP tears: Outcome

- All climbers were climbing again
- 18 did and 2 excelled their initial level (UIAA metric +/- 0.33)
- 10 climbers did not regain their initial climbing level.
- 22 of 30 reached a climbing level inbetween +/- 0.66 UIAA metric grades of their initial capability.
- no significant correlation neither between the initial level of climbing and the difference between postoperative and initial level of climbing ($r_s(30) = -0,18$ and $p=0,33$)

Primary long biceps tenodesis as treatment for high grade SLAP lesions: Clinical evaluation in rock climbers

Primary results – sports level (all athletes)

Distribution of change in climbing level post surgery

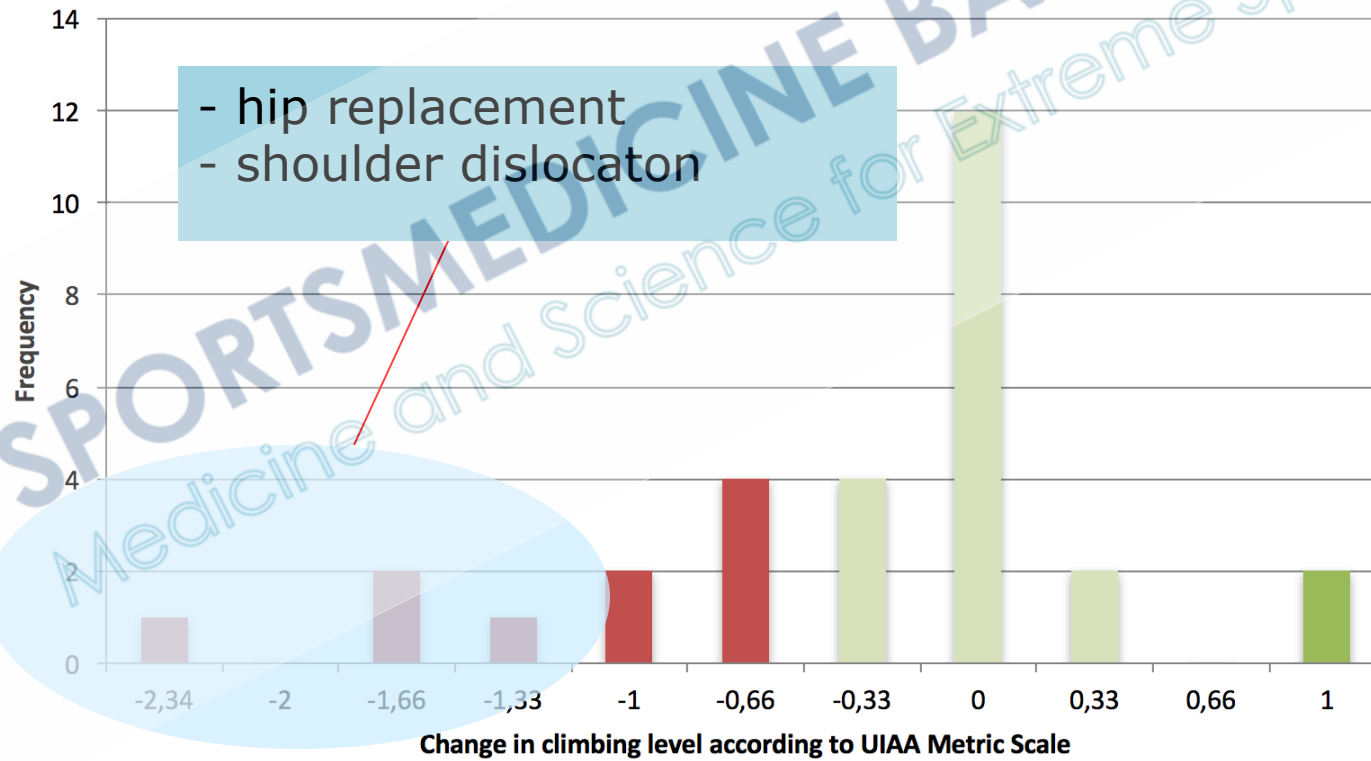


Primary long biceps tenodesis as treatment for high grade SLAP lesions: Clinical evaluation in rock climbers

B. Ott¹, D. Popp², I. Schöffl³, T. Küppers⁴, F. Hennig¹, V. Schöffl^{1,2}

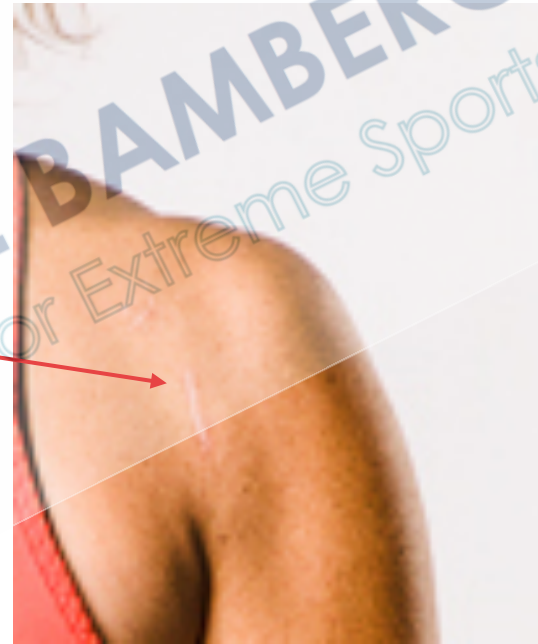
Primary results – sports level (all athletes)

Distribution of change in climbing level post surgery



Primary long biceps tenodesis as treatment for high grade SLAP lesions: Clinical evaluation in rock climbers

Results: 10 m postop, left side



Results: 10 m postop, left side



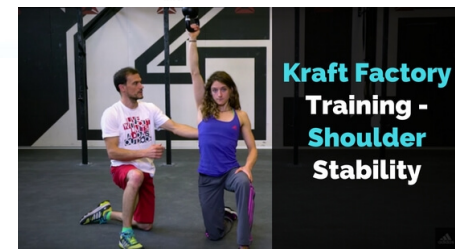
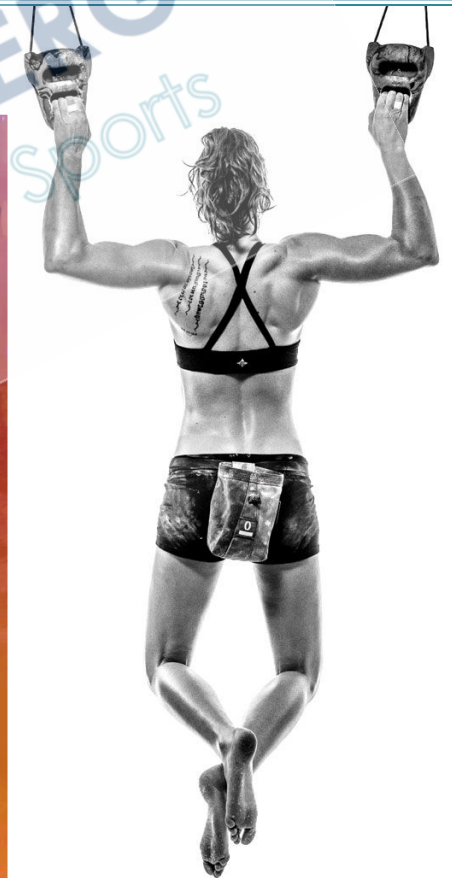
Prophylaxis Muscular stability



Prophylaxis Muscular stability



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ONE MOVE TOO MANY...

ONE MOVE TOO MANY...

HOW TO UNDERSTAND THE INJURIES AND OVERUSE SYNDROMES OF ROCK CLIMBING

