Shoulder Instability
Current Results and New Trends

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Disclosure

- Consultancy Agreements

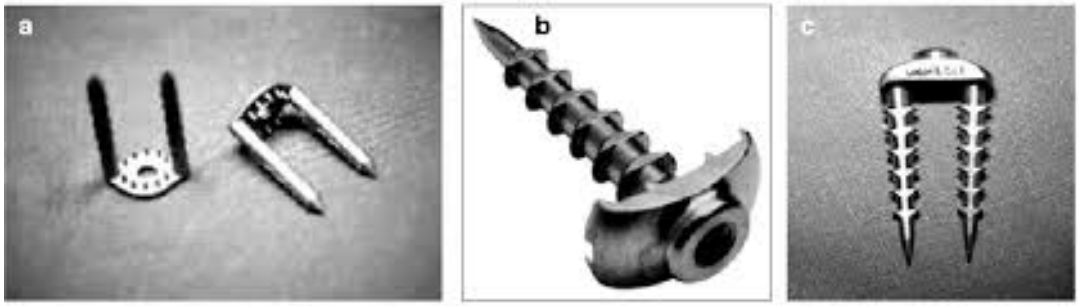
- Medacta
- Zimmer Biomet

1. The Trend
2. Results - The good, the bad and the ugly
3. Where are we going now
    - Adjuncts - Remplissage,
    - Ascopic Bone Block

History

- 1982 - Larry Johnson : Staple Capsulorraphy

- 21 % recurrence



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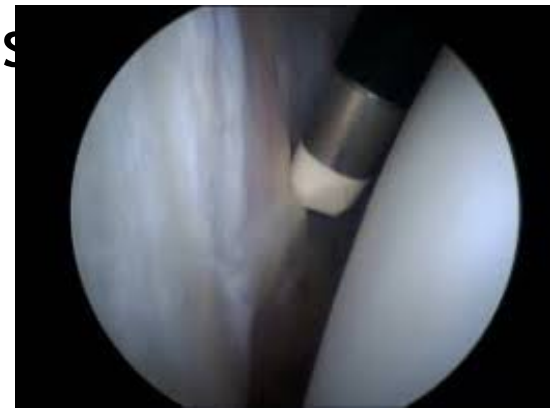

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- Then PEEK, better canulae,
- instrumentation etc.
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So what are we doing now?

- 8589 Instability Surgeries in US Armed Forces
- Over 4 year period to 2015
- Arthroscopic Labral Repair 95.2%
- Open Repair. 2%
- Latarjet - open /ascopic 1.7%. Increased to 3.56%

- Also SLAP Repair on the significantly decreased

Trends in Surgical Management of Anterior Shoulder Instability: Increased Utilization of Bone Augmentation Techniques†.

Galvin JW[1], Eichinger JK[2], Cotter EJ[3], Greenhouse AR[2], Parada SA[4], Waterma
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The Trend

- 1. Increasing Number Arthoscopic Labral Repairs
- 2. Increasing number Bone Block
- 3. Decreasing Open Labral Repair
- 4. Increase Arthroscopic Bone block but started with very low base

Over 5 years... (66564 patients)

Total No. of Stabilization Cases	Arthroscopic		Total Open		Open Bankart		Open Bone Block	
	n	%	n	%	n	%	n	%
10,480	9245	88.22	1235	11.78	1061	10.12	174	1.66
11,443	10,235	89.44	1208	10.56	995	8.70	213	1.86
12,965	11,746	90.60	1219	9.40	904	6.97	315	2.43
15,345	14,031	91.44	1314	8.56	887	5.78	427	2.78
16,331	14,991	91.79	1340	8.21	846	5.18	494	3.02

Trends in Surgical Management of Shoulder Instability. Orthop J Sports Med. 2017 Jun; 5(6): 2325967117712476. Nicholas A. Bonazza, MD, Guodong Liu, PhD,† Douglas L. Leslie, PhD,† and Aman Dhawan, MD*‡*

The Results

- Open vs Arthrosopic Labral Repairs

Systematic review of MEDLINE, Embase, Scopus, and Google Scholar.

22 studies

POOLED DATA - No difference in Recurrence but significant better ER in Arthroscopic Groups

Open versus arthroscopic surgical treatment for anterior shoulder dislocation: a comparative systematic review and meta-analysis over the past 20 years. ; Erik Hohmann, MBBS, FRCS, FRCS (Tr&Orth), MD, PhD Erik Hohmann, Kevin Tetsworth, MD, FRACS JSES OCT 2017

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Studies published between 1995 - 2004

significant difference in recurrence favouring OPEN

Studies published between 2005-2015

- NO significant difference in recurrent rates

How About Labral Repair vs. Latarjet

- 3 Group of patients

- 1. Need Labral repair
- 2. Need bone block
- 3. Stuck in the middle

Stuck in the middle?

- Glenoid loss 15-20%
- Hills Sachs engaging
- Youngish

- Its not a fair comparison so I wont compare
- My experience - Get away with it (asopic labral repair) most of the time so my first option
- No good studies looking at this data
- Patient specific - Rugby, football etc = Latarjet

Others?

- Pelvic Graft etc.
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Arthroscopic Latarjet

- Is this a good idea?

Results

Table 1 Clinical results following arthroscopic Latarjet procedure

Authors	Journal	Years	Patient number	Fixation methods	Follow-up (months)	Recurrence rate	Non-union	Return to sport	Functional score	Accurate bone block position
Athwal *et al.* (8)	Arthroscopy	2016	83	2 screws	17	3 (3.6%)	1 (1.2%)	NR	NR	NR
Boileau *et al.* (2)	Arthroscopy	2007	36	Interference screw	19	3 (8.3%)	1 (2.8%)	91%	WD, 87	NR
Boileau *et al.* (22)	Arthroscopy	2010	47	1 screw	16	0	8 (17.0%)	NR	Rowe, 88; WD, 87.6; SSV, 87.5%	92% axial; 98% sagittal
Boileau *et al.* (12)	JSES	2016	76	Cortical button	14	1 (1.3%)	7 (9.2%)*	93% to pre-injury level	Rowe, 95; WD, 96	96% axial; 93% sagittal
Castricini *et al.* (7)	Musculoskelet Surg	2013	30	2 screws	13	0	NR	100%	Rowe, 90	76% axial
Cunningham *et al.* (5)	KSSTA	2016	28	2 screws	6.6	1 (3.6%)	2 (7.1%)	NR	WD, 88	93% “correct position”
Dumont *et al.* (23)	AJSM	2014	62	2 screws	76.4	1 (1.6%)	NR	93.50%	WOSI, 90.6%	NR
Gendre *et al.* (24)	OTSR	2016	70	Cortical button	12	2 (2.9%)	12 (17.1%)*	NR	NR	94% axial; 93% sagittal
Kany *et al.* (4)	JSES	2016	105	2 screws	NR	NR	NR	NR	NR	91% axial; 81% sagittal

*, smoking was a risk factor. NR, not reported; WOSI, Western Ontario Shoulder Instability Index; WD, Walch-Duplay; SSV, subjective shoulder value.

Open vs Ascopic Latarjet

Nourissat and the French Arthroscopic Society : 99 Scope vs 85 Open;
WOSI better in open group after 6 months

Nourissat and the French Arthroscopic Society : 390 cases - similar results
re: reinstability , not much difference elsewhere

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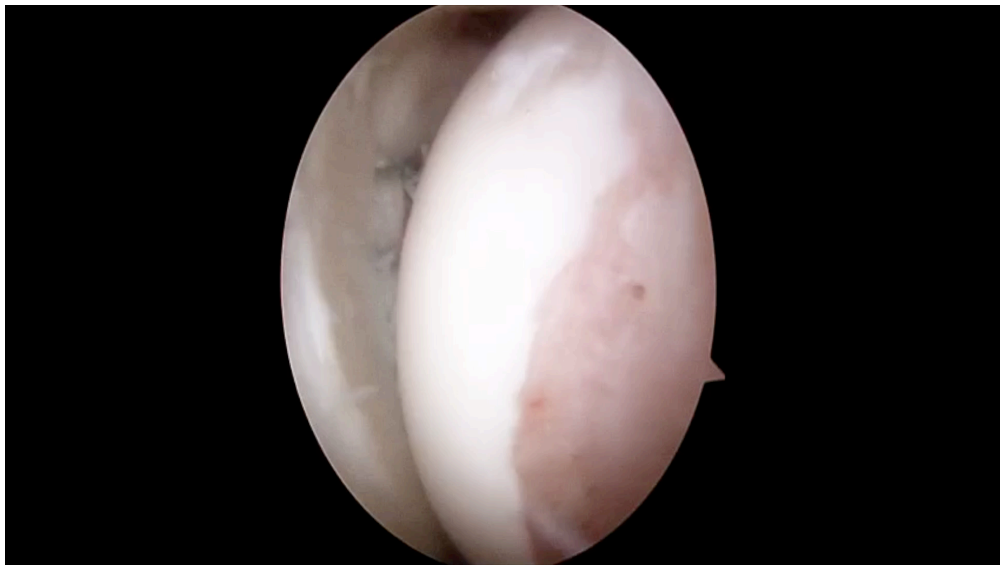
Recents Trends

- 1. Remplissage (Big fan)
- 

The Evidence

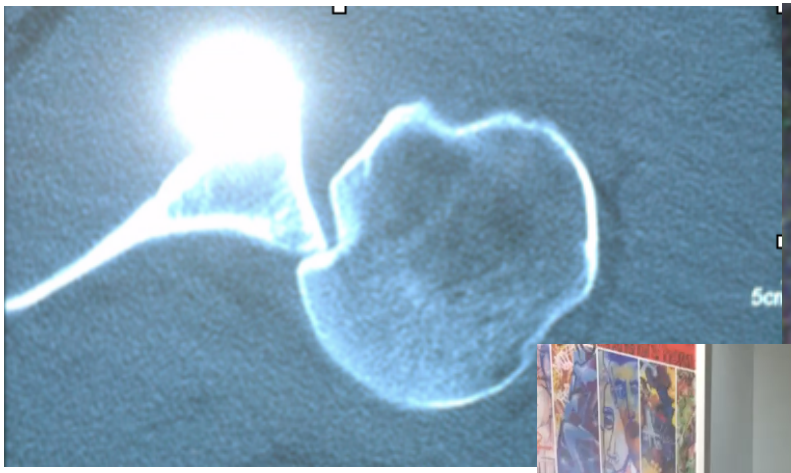
- ***Combined arthroscopic Bankart repair and remplissage for recurrent shoulder instability.***
- ***Leroux T[1], Bhatti A, Khoshbin A, Wasserstein D, Henry P, Marks P, Takhar K, Veillette C, Theodoropolous J, Chahal J.***

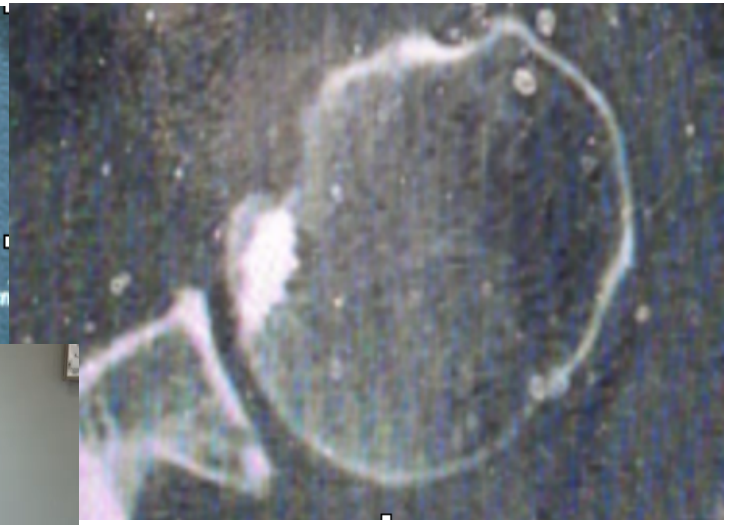
- Medline, Cochrane & Pubmed
- Minium 1 yr F/up
- 7 studies / 220 Patients
- Mean age 29
- Mean follow up 26 monthsEssentially a summary of available clinical evidence

- Redislocation Rate: 3.4%
- No significant difference in ROM compared to standard arthroscopic labral repair
- Higher patient satisfaction, favourable clinical outcomes

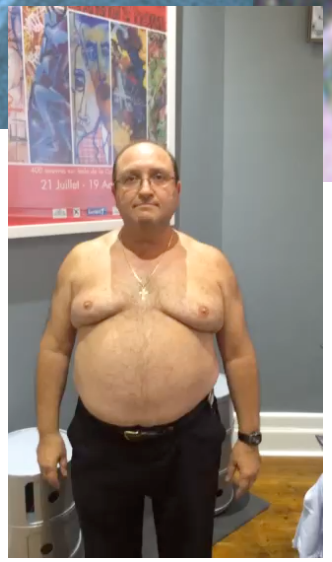
Reverse Remplissage

- Experience : N=1





- 2 year FU—>



Summary

- More Ascopic Labral Repair with better results but almost at ceiling
- More Latarjet (open and scope) but started with very low base
- Less open labral repair

Thank you

Papers

- 1.Orthop J Sports Med. 2017 Jun; 5(6): Trends in Surgical Management of Shoulder Instability Nicholas A. Bonazza, MD,* Guodong Liu, PhD,† Douglas L. Leslie, PhD,† and Aman Dhawan, M

- 2. David Saliken, Pascal Boileau, Arthroscopic Latarjet—learning curve, results, and complications , Ann Joint 2017;2:70
- 3.Open versus arthroscopic surgical treatment for anterior shoulder dislocation: a comparative systematic review and meta-analysis over the past 20 years

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