

ANGEL CALVO, MD; PHD

**President of the Spanish
Arthroscopy Association
(AEA) 2013-2016*



**President of ESA (Shoulder
Section of ESSKA) 2014-2016*



2017 11TH BIENNIAL
ISAKOS CONGRESS
JUNE 4-8, 2017 | SHANGHAI, CHINA

DISCLOSURE



ORTHO)SPACE

International Consultant

International Consultant

BAD PROGNOSIS FACTORS

- *Size and number of involved tendons*
- *Subscapularis Tears*
- *Retraction*
- *Soft tissue quality*
- *Bone quality*
- *Fatty infiltration & degeneration*

**IRREPARABLE TEARS AND NON-VIABLE TEARS:
TWO CONCEPTS, THE SAME PROBLEM**

What to do?

Decision Making is too difficult as many factors are involved

- *Age*
- *Activity Level*
- *Tissue Quality*
- *Reparable or not*
- *Clinical Pattern*
- *Subscapularis Tear or not*
- *Risk factors for failure*
- *Osteoarthritis*

THE BEST TECHNIQUE

*Arthroscopic Procedure
Minimally invasive
Easy recovery*

But...

*To provide a painful shoulder
To reestablish the function*

WHAT IS THE BALLOON?

- *Simple concept ??*
- *Easy technique (maybe too easy??)*
- *Just a fashion ??*
- *Why 11000 balloons have been used in Europe?*

TREATMENT OPTIONS

● Rule WYDYG-8085

1. *Debridement +/- Tenotomy*
Rockwood 1995: 83%
Kempf: Doesn't slow the progression to OA
2. *Partial repair*
Burkhart 1993
3. *Debridement and Partial Repair*
Berth 2010
4. *Interval Slide*
Tauro 1999
5. *Tuberoplasty*
Feulin 2002: 81%
Progression to OA

TREATMENT OPTIONS

Rule WYDYG-8085

6. Grafts

**Neviaser 1978: Allograft*

**Allografts: Graftjacket (Snyder 2008)*

**Xenografts: Porcine*

**Synthetic: Dacron, GoreTex, Mersilene, etc*

7. SEN Release/Ablation 50-75%


8. *Arthroscopic Superior Capsule Reconstruction*

9. *Subacromial Spacer (Balloon)*

10. Tendon Transfer


11. Reverse Prosthesis




ADVANTAGES

A large, faint watermark of the arthrosport logo and the word 'arthrosport' is centered in the background of the slide.

Minimally invasive
Easy technique
Fast recovery
Pain improvement
Open doors to failure

THE QUESTIONS

- *Is it efficient?*
- *Is the debridement or tenotomy the responsible of improvement*
- *Is it really absorbable?*
- *Is it resistant?*
- *What are the indications?*
- *What happens after resorption?*
- *Can it prevent osteoarthritis? *
- *Any technical trick?*

- *How does it work?*
 - Fibrous layer? *
 - Decreasing friction? *
 - Humeral head depressor? *

IS IT EFFICIENT?

Prospective clinical study of a novel biodegradable sub-acromial spacer in treatment of massive irreparable rotator cuff tears

Vladimir Senekovic · Boris Poberaj · Ladislav Kovacic · Martin Mikek · Eliyahu Adar · Assaf Dekel
Eur J Orthop Surg Traumatol. April 2012

20 patients. Average age 70.5 y.o.

Follow up: 34.7 m (4-95 m)

CONSTANT PRE 33.4 /CONSTANT POST 65.4

Significative improvement in all aspects

Improvement of strength at 18 m.

The results are maintained at 3 years

...and at 5 years!!!! CS 66.39

IS IT EFFICIENT?

Gregor Szöllösy, M.D., Claudio Rosso, M.D., Simon Fogerty, M.B.Ch.B., Kalojan Petkin, M.D., and Laurent Lafosse, M.D.

Subacromial Spacer Placement for Protection of Rotator Cuff Repair

Arthroscopy Techniques, Vol 3, No 5 (October), 2014: pp e605-e609

- *It decreases friction on repaired tendon*
- *It can improve the tendon healing because the tendon needs less force for depressing the humeral head.*
- *Potential risk of decreasing vascular flow*
- *NOT recommended in PSEUDOPARALYSIS*

IS IT EFFICIENT?

Malte Holschen¹ · Florian Brand² · Jens D. Agneskirchner³

Subacromial spacer implantation for massive rotator cuff tears. Clinical outcome of arthroscopically treated patients

Obere Extremität DOI 10.1007/s11678-016-0386-9 © Springer Medizin Verlag Berlin 2016

*11 repair + SAD + Tenotomy

*12 + balloon

*Improvement of CS in both

*Best improvement CS group B

*NOT recommended in

PSEUDOPARALYSIS

IS IT EFFICIENT?

E. Gervasi¹ • E. Maman² • A. Dekel³ • E. Cautero¹

Fluoroscopy-guided biodegradable spacer implantation using local anesthesia: safety and efficacy study in patients with massive rotator cuff tears.

Musculoskelet Surg (2016) 100 (Suppl 1):S19–S24

**15 patients*

**15 points of improvement
in 85% of patients*

**Improvement at 6th week*

**Results maintained at 1 year*

**1 case to reverse prosthesis*

BALON SUBACROMIAL. ¿Y NADA MÁS?

MY OWN EXPERIENCE: 20 PATIENS. 6M-2,5 YEARS

arthrosport

CLINICAL RESULTS: 3 SCENARIOS

- *Painful passive ROM Pattern*
- *False Pseudoparalytic Pattern*
- *True Pseudoparalytic Pattern*

INDICATIONS: BEST PREDICTABLE RESULTS

*Irreparable Massive Tears and
Re-tears*

No pseudoparalytic pattern

Main symptom is PAIN

No Glenohumeral Osteoarthritis

TECHNICAL TRICKS

* *Acromioplasty*



* *LHB Tenotomy*



* *Oversize*



* *Adjust to recommended volume*



* *On the remaining tissue*



* *Medialize 1-2 cm*



HOW DOES IT WORK?

ONLY AN EXPENSIVE COSMETIC PROCEDURE?

arthrosport

*The secret is to
obtain a pain free
shoulder for a
good rehab*

HOW DOES IT WORK? A GLOBAL VISION

*We can only understand this pathology
Understanding the shoulder as the whole of its
joints.*

arthrosport

TAKE HOME

Offer to the patient the most predictable result.

- *Age
- *Level of activity
- *Reparable / Viable tissue
- *Risk factors for failure
- *Clinical pattern
- *Osteoarthritis

The spacer has a space

Patient selection

Control of PT

More studies are needed