AANA23
ANNUAL MEETING
NEW ORLEANS
MAY 4-6, 2023

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ePoster #36

Early MRI Findings and Clinical Outcomes Associated with Subacromial Balloon Spacer Implantation

Zeeshan A. Khan BA; Suhas P. Dasari MD; Mariano Menendez MD; Garrett Jackson MD; Benjamin Kerzner MD; Luc M. Fortier MD; Nabil Mehta MD; Daniel J. Kaplan MD; **Nikhil N. Verma, MD**
Midwest Orthopaedics at Rush
Chicago, IL

MIDWEST ORTHOPAEDICS AT RUSH

DISCLOSURES

Disclosure

I (and/or my co-authors) have something to disclose.

Detailed disclosure information is available via:

The course syllabus, or

AAOS Disclosure Program on the AAOS website at
http://www.aaos.org/disclosure

AAOS
American Academy of Orthopaedic Surgeons

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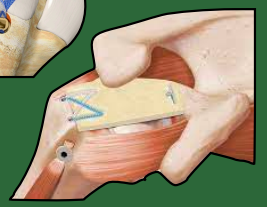
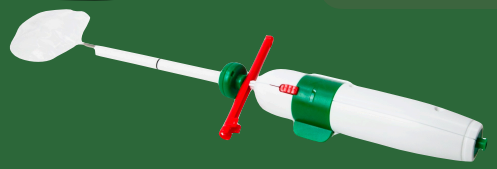
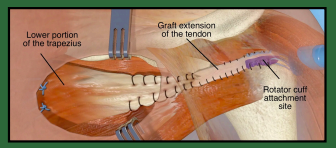
Background:

SUBACROMIAL BALLOON SPACER

GOAL OF TREATMENT







Humeral Head Depression

Concavity Compression

Deltoid Elevation

Pain Relief

ACCELERATED REHABILITATION!

WHY USE THE BALLOON?

- Simplified Surgical Technique
- Accelerate Rehabilitation
- Early Clinical Improvement
- Improved Patient Satisfaction

JB&JS THE Journal OF Bone & Joint Surgery

InSpace Implant Compared with Partial Repair for the Treatment of Full-Thickness Massive Rotator Cuff Tears

A Multicenter, Single-Blinded, Randomized Controlled Trial

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DOES IT WORK?

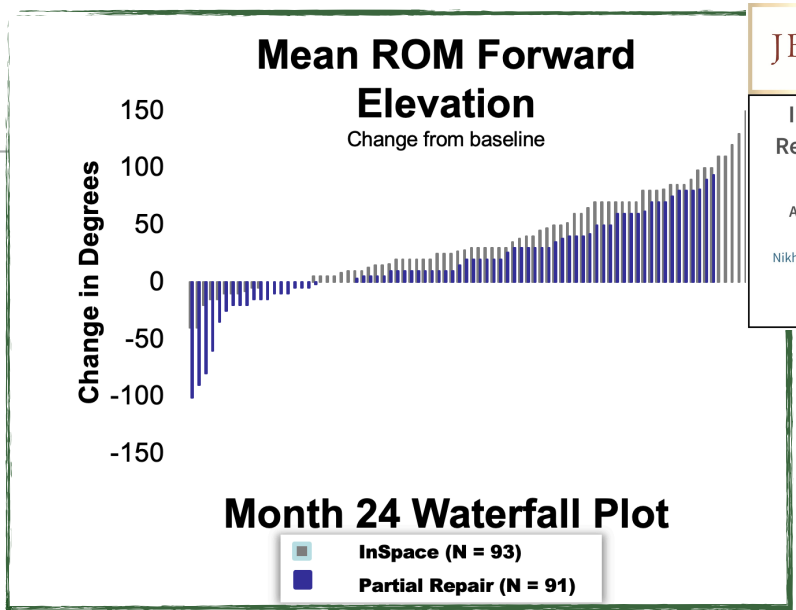
U.S. CLINICAL TRIAL

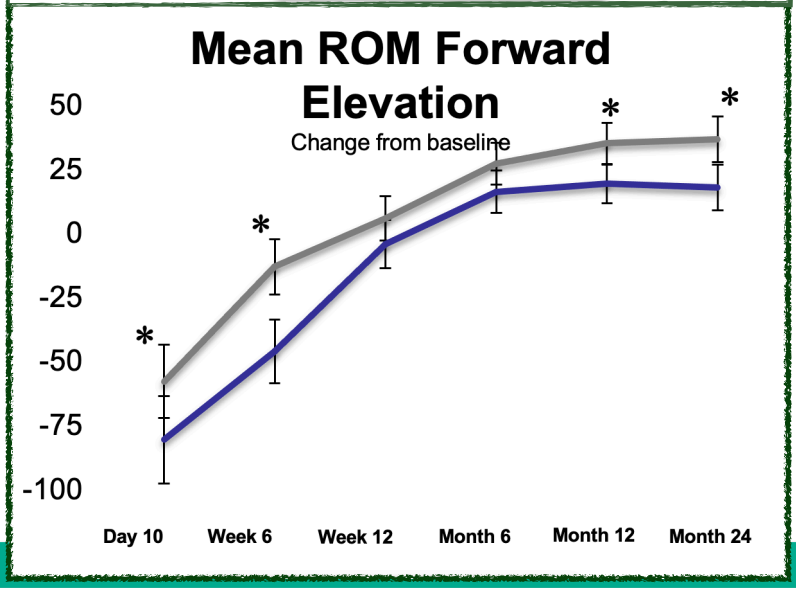
CLINICAL OUTCOMES

ROM significantly higher in balloon group before 6 weeks

ROM significantly higher in balloon group after 1 year

Balloon had improved early/late ROM





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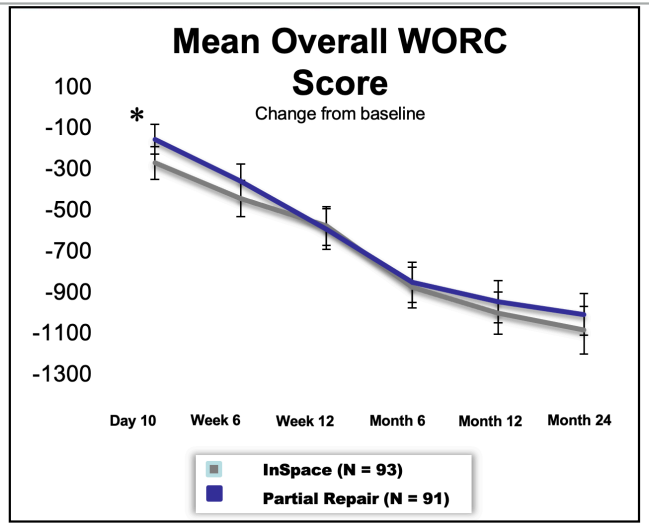
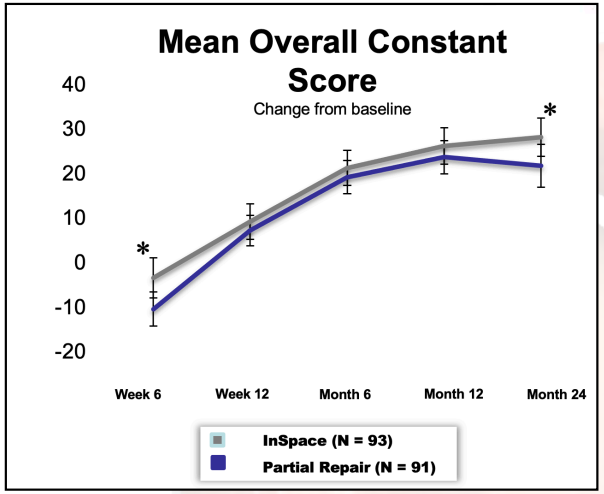
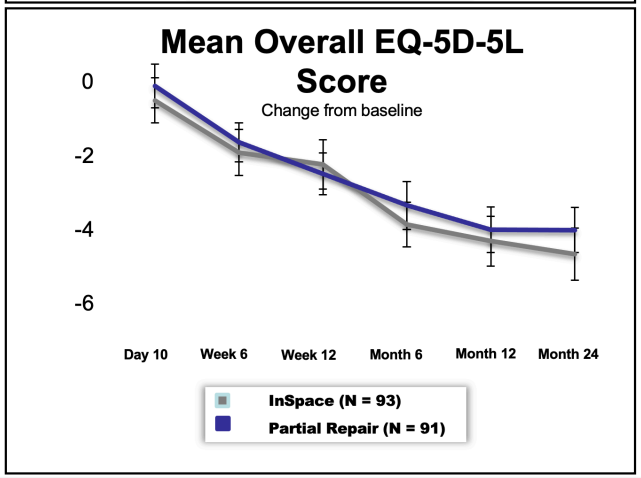
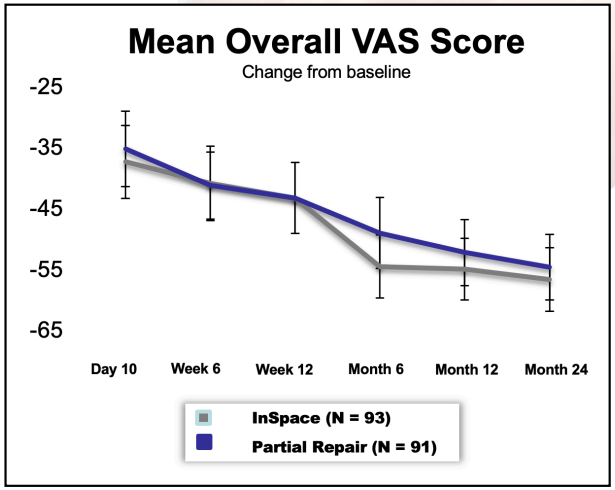
CLINICAL OUTCOMES









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SUMMARY U.S. CLINICAL TRIAL

INSPACE

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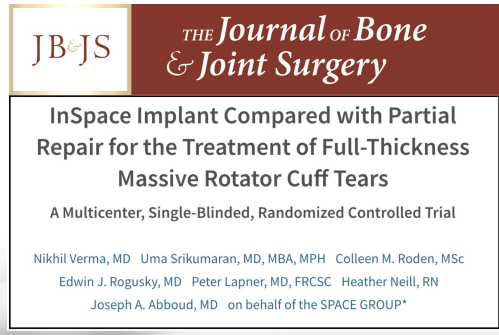
Comparable/Better PROs at 2 Years

Early Benefit as Soon as 6 Weeks

Success w/o Sacrificing ROM

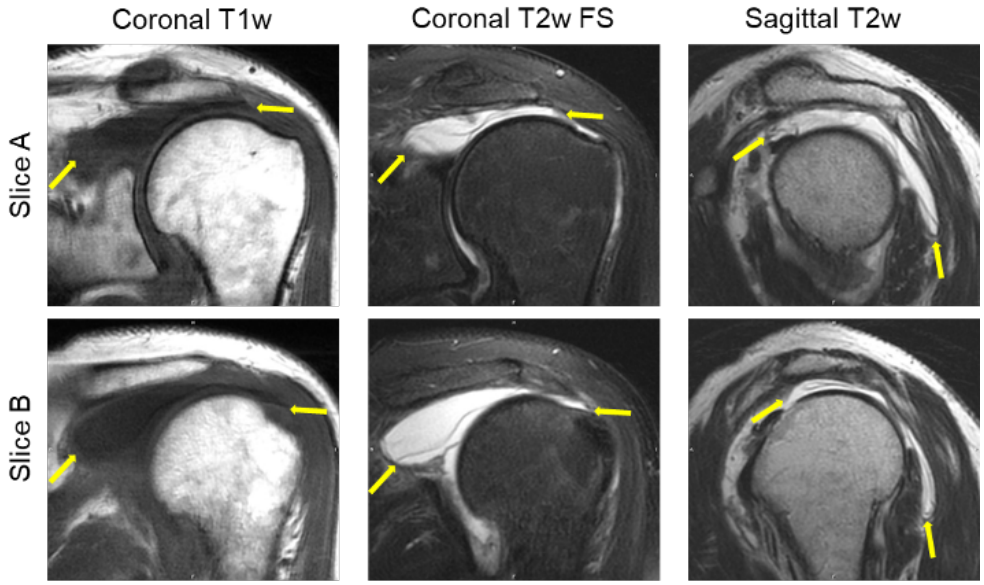
Significantly Faster Procedure



WHAT ABOUT POST-OP IMAGING?

OBJECTIVES: INSPACE IMAGING STUDY

INSPACE



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Clinical Outcomes Promising

Little Known About Post-Op Imaging

Does Deflation Influence Outcomes?

Does Migration Influence Outcomes?

INSPACE IMAGING STUDY

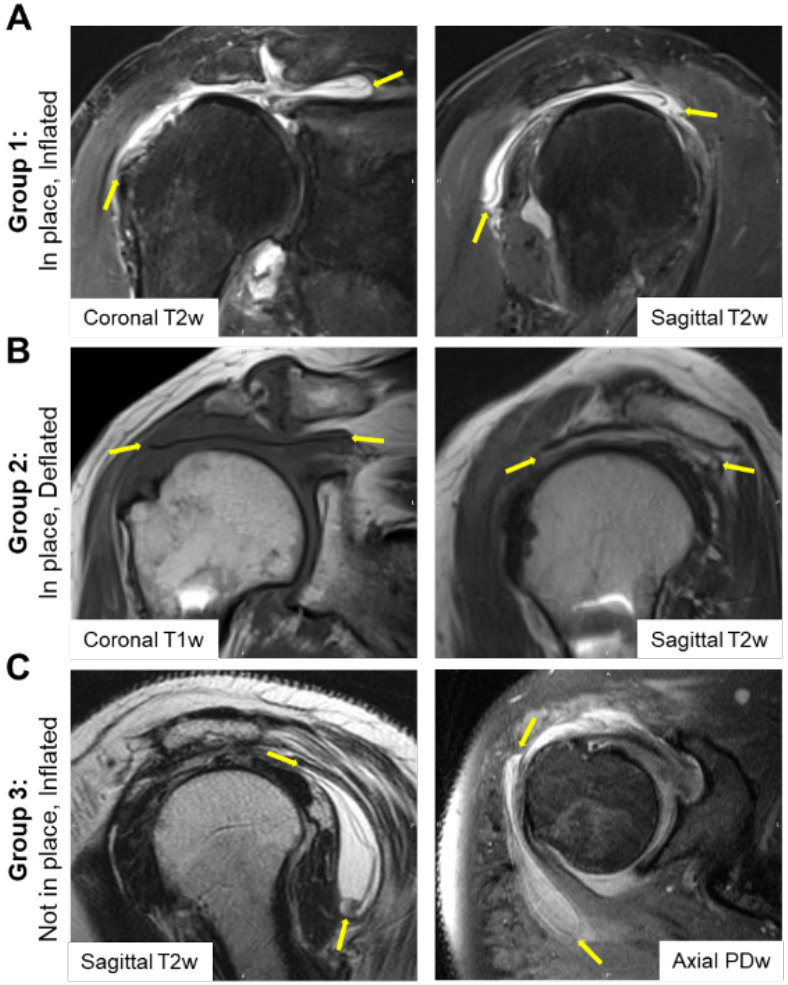
<u>Design</u>: Second-Look MRIs of Study Pts

1. 6 Weeks Post-Op
2. 32 Total Patients Recruited

<u>Methods</u>: MRI Imaging Protocol

1. Reference / Scout / Localizer
2. Coronal Oblique T1-Weighted FSE
3. 3D Saggital Oblique 3D SPGR

INSPACE IMAGING STUDY



Results: Device Location and Inflation

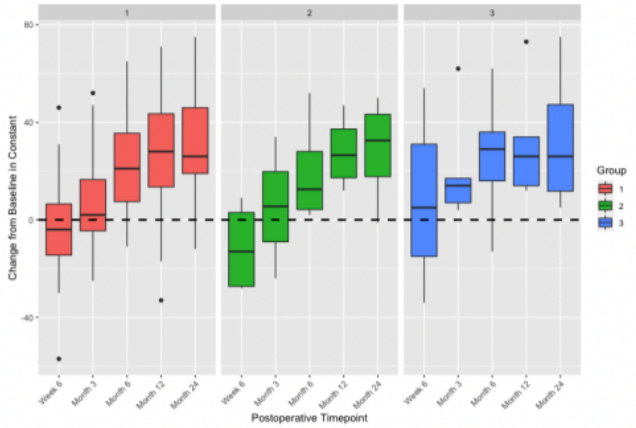
1. 88% Inflated
2. 84% in SAS
3. 72% Inflated + in SAS
4. 0% Deflated + Migrated

INSPACE IMAGING STUDY

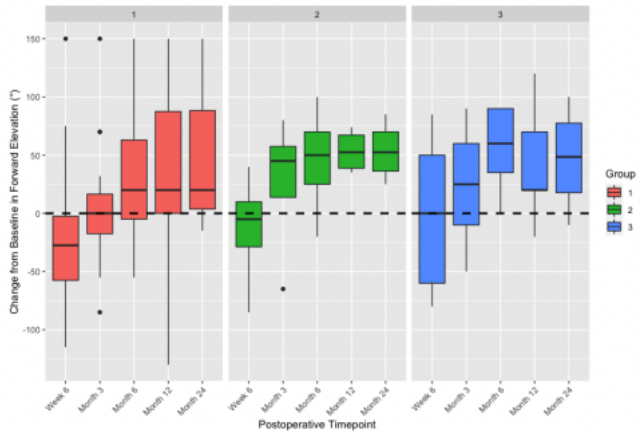
Results: Influence of Location/Inflation

1. No Effect on Clinical Outcomes at All Timepoints
2. No Effect on Range-of-Motion at All Timepoints
3. Deflation/Migration Do Not Worsen Clinical Outcomes

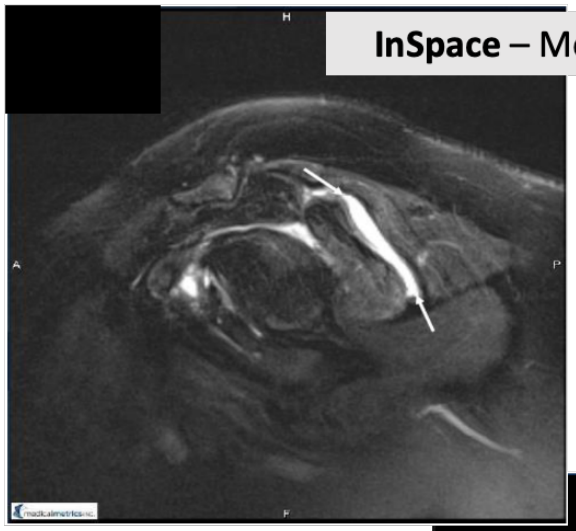
CONSTANT SCORE



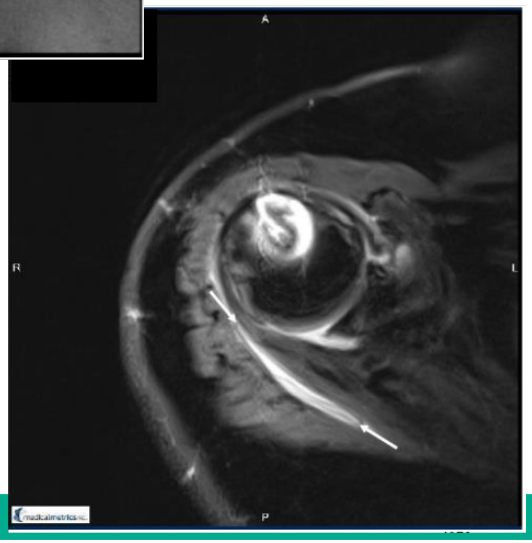
FORWARD ELEVATION



INSPACE IMAGING STUDY



InSpace – Medium device



Position reported:

1) Posterior to infraspinatus
2) Posterior subdeltoid bursa

Considerations:

1. Device is Dynamic
2. MRI: One Point in Time

If Suspected Displacement…

1. Most Likely No Issue
2. MRI Recommended with Acute Event

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THANK YOU!

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