

The beneficial role of arthroscopy in the investigation of wrist disorders: A retrospective evaluation of 125 cases

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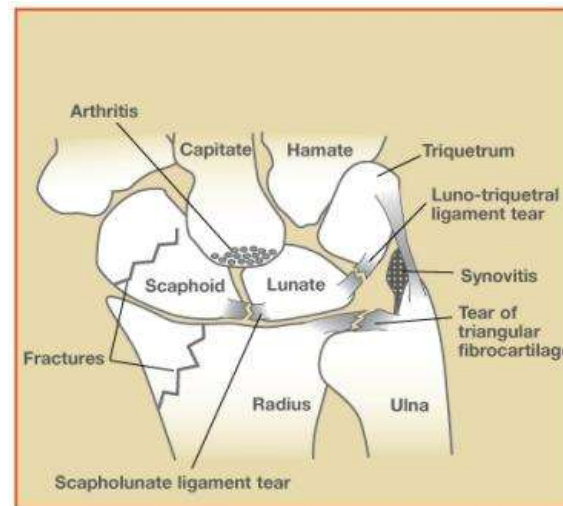
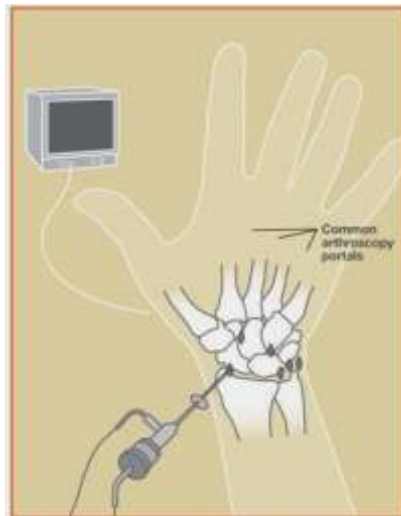
Wrist arthroscopy

- Useful investigation in defining the patterns, combinations and extent of soft tissue and bony injuries which frequently are more extensive than clinically suspected

Adolfsson 1992

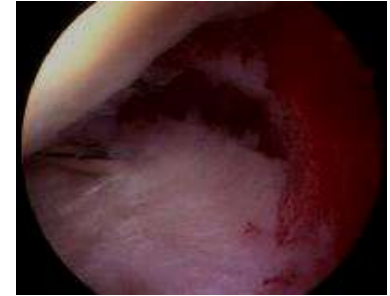
Kelly & Stanley 1990

North & Mayer 1990

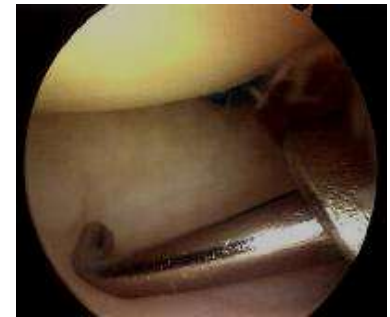


Indications

- intra-articular fractures
- wrist lavage
- synovectomy
- ganglionectomy
- distal ulnar shortening
- loose body removal
- degenerative arthritis
- repair of the TFCC
- resection arthroplasty
- septic arthritis
- interosseous ligament repair



But what is the actual benefit?



Study design

- Retrospective review of 125 patients with wrist pathology
- Correlation of clinical and radiological diagnosis with arthroscopic findings
- Investigation of how **beneficial** was the arthroscopic procedure for either diagnostic or therapeutic purposes

Group I preoperative clinical and/
or radiological diagnosis

Group II normal physical
or radiological findings

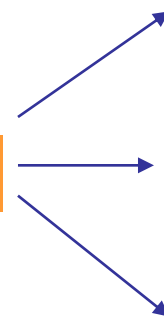
Group III established diagnosis

arthroscopy for

Confirmation,
therapeutic purposes

Diagnostic purposes

Staging, preop planning

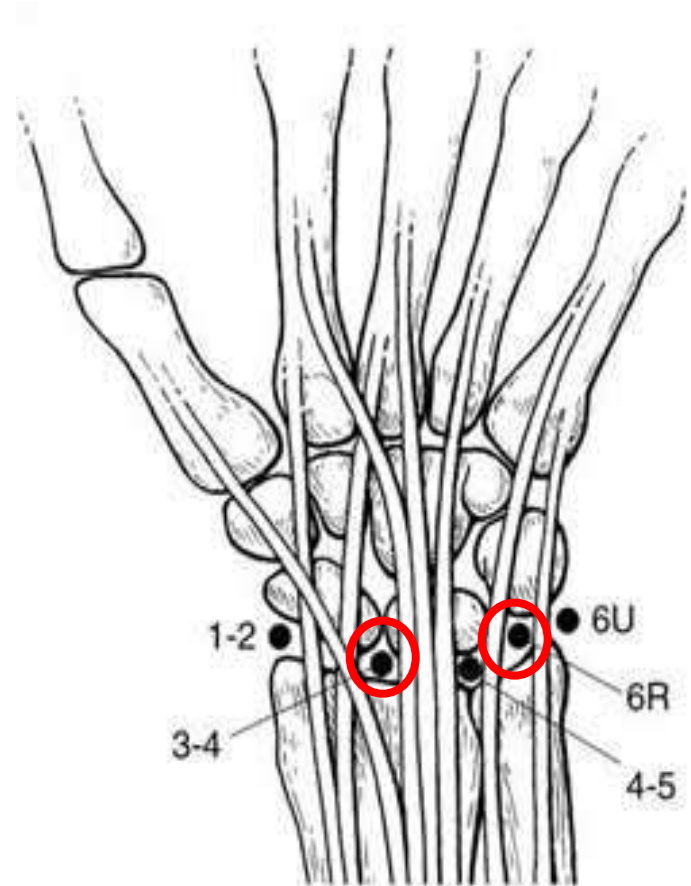


Material

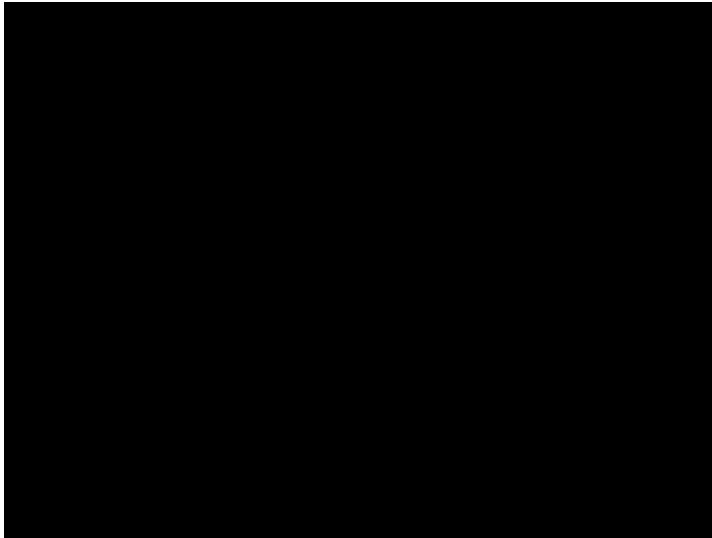
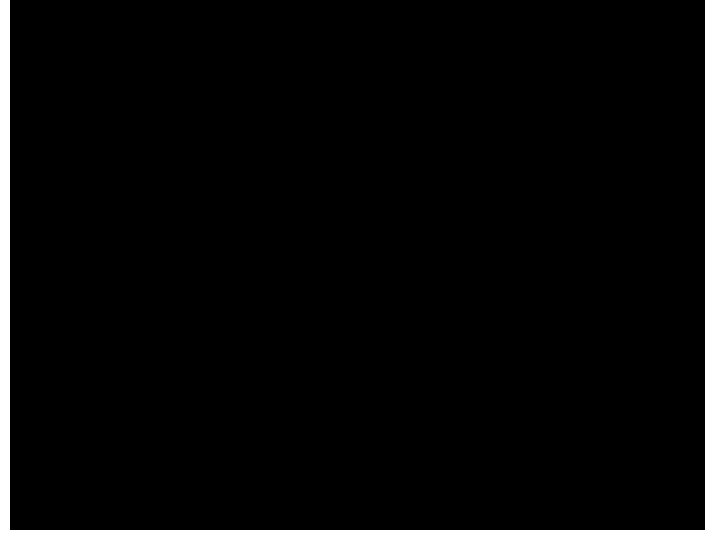
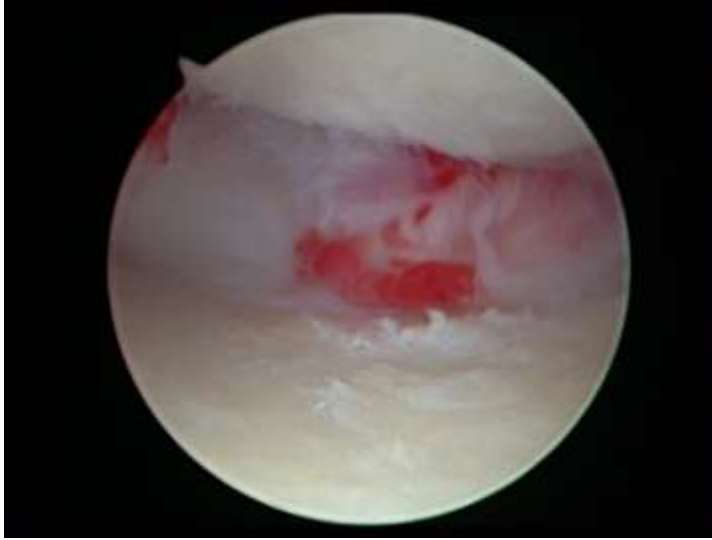
- 125 consecutive wrist arthroscopies (19 = Olympion)
- Seven year period (2004-2011)
- 49 male, 76 female
- Mean age at operation 38 years (range 17-64 years)
- 57 patients (45.6%) had a documented previous injury
- 320 conventional diagnostic tests and 456 imagine studies!

Group I	preoperative clinical and/ or radiological diagnosis	94 patients (75.2%)
Group II	Pain, but normal physical or radiological findings	12 patients
Group III	established diagnosis	19 patients

Surgical technique



Surgical technique



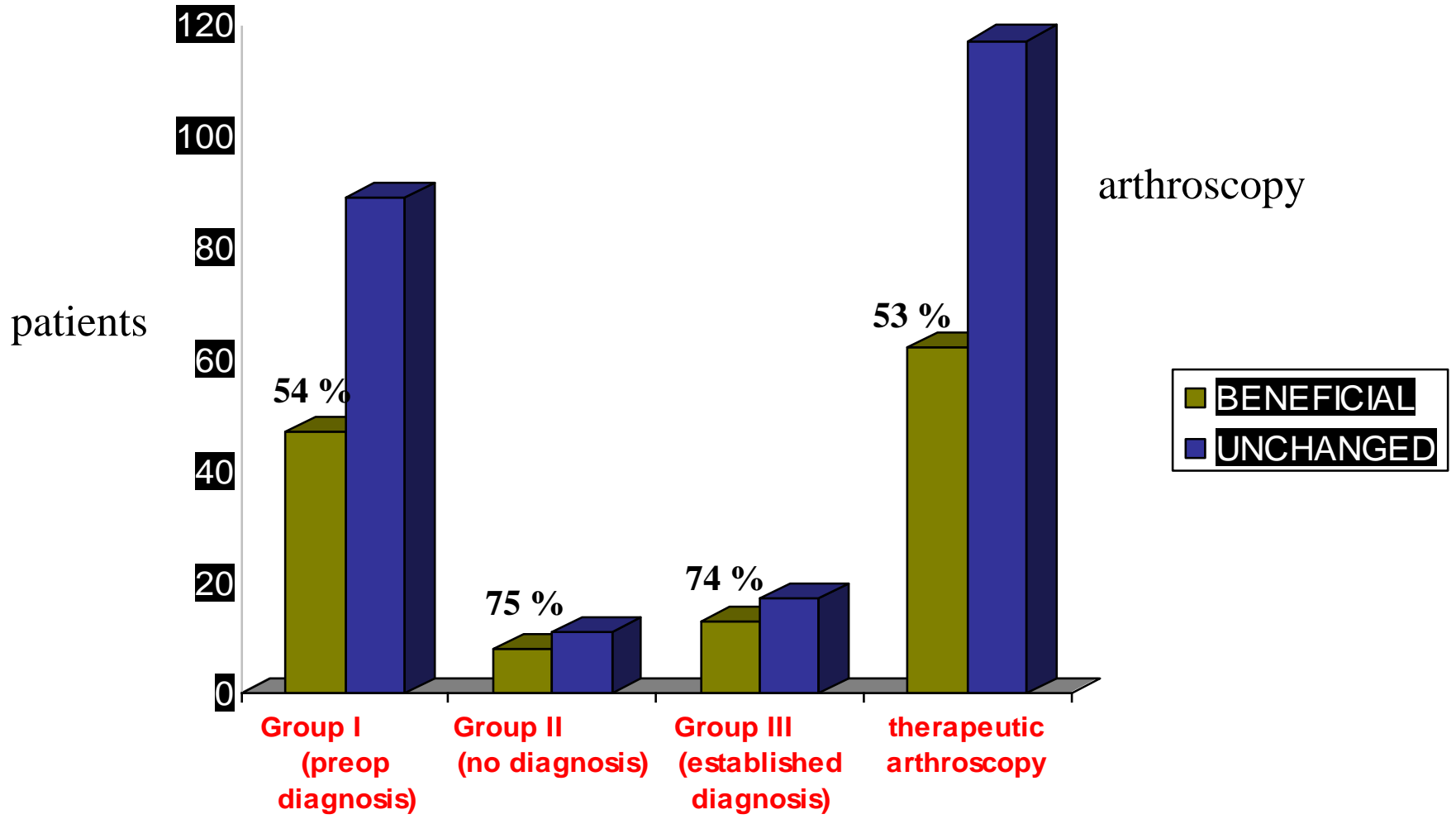
How beneficial the arthroscopy was...

- **Group I:** when the pre-operative diagnosis was changed, excluded or limited in such a way that the management was changed
- **Group II:** when a diagnosis was established (valuable when an intra-articular pathology corresponded to the patient symptoms)
- **Group III:** when the pre-operative planning was changed
- **Therapeutic arthroscopy** was considered worthwhile when the procedure could be technically performed, independently of the ultimate outcome

Results

- **Group I:** Arthroscopy was beneficial in 51/94 patients (**54%**) from in whom the pre-operative diagnosis was changed or augmented sufficiently to alter subsequent management.
- **Group II:** A beneficial arthroscopy establishing a definitive diagnosis was conducted for 9/12 patients (**75%**)
- **Group III:** Arthroscopy was of benefit to 14/19 patients (**74%**) for whom the subsequent definite management plan was modified.
- For all groups, arthroscopy was deemed of benefit when a therapeutic intervention was successfully conducted, independently of the ultimate outcome. There were 66/125 (**53%**) such patients.

Results



Speculations...

- **9/12 (25%)** of the patients in Group II (no diagnosis) had a normal arthroscopic appearance (9.4 investigations per patient!!!)
 - work compensation, malingering, simulation?
 - undiagnosed chronic wrist pain?
- **31/51 (61%)** arthroscopies in Group I where the pre-operative diagnosis was changed or augmented sufficiently to alter subsequent management, revealed significant unsuspected intra-articular pathology
 - unrelated to the clinical findings or misdiagnosed?



Conclusion

- These data demonstrate the importance of wrist arthroscopy both as a diagnostic and therapeutic tool in the management of wrist disorders
- A thorough clinical examination is still the best way to reach the diagnosis
- Correlation of the unexpected arthroscopic findings with the symptoms of the patient to avoid over-treatment
- Useful tool in preoperative planning when a diagnosis is already exist

Thank you

