TRIANGULAR FIBROCARTILAGE COMPLEX 1b LESIONS:
ARTHROSCOPIC REPAIR

1 F. Pegreffi, 2 L. Belletti, 3 M. Esposito

1 Institute of Sport Medicine, University of Bologna, Bologna, Italy
2 Rheumatology Unit, Department of Internal Medicine
University of Modena & Reggio E., Modena, Italy
3 Villa Serena Hospital, Forli, Italy

The Authors have no relationships or conflicts of interests to disclose
INTRODUCTION

- A fall on the outstretched hand or a violent traction and twisting injury of the wrist or forearm
- Traumatic TFCC tear
- Originally used by Palmer & Werner ¹,²
- TFCC Complex Includes:
  - articular disc
  - volar and dorsal radio-ulnar ligaments
  - ulnar collateral and ulno-carpal ligaments

INTRODUCTION

• Volar and dorsal radio-ulnar ligaments
• Primary stabilizers of the DRUJ
• Loss of TFCC support may lead to DRUJ instability
• Controversy still exists as to which is the best treatment for type 1-b TFCC tears associated with DRUJ instability

The purpose of this study is to evaluate the long-term clinical outcomes in patients affected by stable type 1b TFCC lesions and in association with distal radio ulnar joint (DRUJ) instability after arthroscopic repair.
PATIENTS

- 138 patients

- Group A, 117, 27±7 yrs
  Type 1-b TFCC lesion, without DRUJ instability

- Group B, 21, 24±4 yrs
  Type 1-b TFCC lesion, with DRUJ Instability

- Ulnar-sided pain
- Reduced grip strength
- Decrease forearm rotation
- Clinical signs of DRUJ instability
MATERIALS & METHODS

EXCLUSION CRITERIA

- Previous wrist fractures
- Irreparable TFCC lesions
- Arthritis and/or articular changes of the joint
- Metabolic and/or rheumatologic diseases
MATERIALS & METHODS

SURGICAL TECHNIQUE: 1-b TFCC Lesion without DRUJ instability

• Peripheral ulnar-sided TFCC tear

• Preserved Foveal Insertion

• Out-in all-inside suture
MATERIALS & METHODS

SURGICAL TECHNIQUE: 1-b TFCC Lesion, Partial DRUJ Instability
MATERIALS & METHODS

SURGICAL TECHNIQUE: 1-b TFCC Lesion, Complete DRUJ Instability
MATERIALS & METHODS

SURGICAL TECHNIQUE: 1-b TFCC Lesion, Complete DRUJ Instability

- 1° step: TFCC fovea restoration
- 2° step: Type 1-B TFCC lesion repair
RESULTS

• At three years follow-up the overall results were excellent and significantly improved in terms of:
  • SF-36 (p<0.005)
  • DASH (p<0.005)
  • VAS (p<0.005)
  • ROM (p<0.05)
  • Grip Strength (p<0.05)
• We have found no significant difference between Group A and Group B at three years follow-up
At three years follow-up the overall results were excellent and significantly improved in terms of:

- SF-36 (p<0.005)
- DASH (p<0.005)
- VAS (p<0.005)
- ROM (p<0.05)
- Grip Strength (p<0.05)

We have found no significant difference between Group A and Group B at three years follow-up
RESULTS

- At three years follow-up the overall results were excellent and significantly improved in terms of:
  - SF-36 (p<0.005)
  - DASH (p<0.005)
  - VAS (p<0.005)
  - ROM (p<0.05)
  - Grip Strength (p<0.05)
- We have found no significant difference between Group A and Group B at three years follow-up
RESULTS

- At three years follow-up the overall results were excellent and significantly improved in terms of:
  - SF-36 (p<0.005)
  - DASH (p<0.005),
  - VAS (p<0.005),
  - ROM (p<0.05)
  - Grip Strength (p<0.05)
- We have found no significant difference between Group A and Group B at three years follow-up
DISCUSSION

- Our data demonstrated optimal results at three years follow-up

- Even in presence of instability, the anchor employment allows to obtain an intra-operative suture stability maintained overtime

- In fact, comparing Group A and Group B, functional outcomes after three years were not significantly different
CONCLUSION

- Arthroscopy is a tool of paramount importance in both diagnosis and treatment of TFCC injuries even associated with DRUJ instability

- Furthermore, type 1b lesions associated with total DRUJ instability should be managed combining an out-in arthroscopic technique with the use of an anchor to completely relieve pain and restore wrist function

- Thus contributing to the development of an “all-arthroscopic” attitude toward wrist disorders.
THANK YOU