

ACUTE PATELLAR DISLOCATION



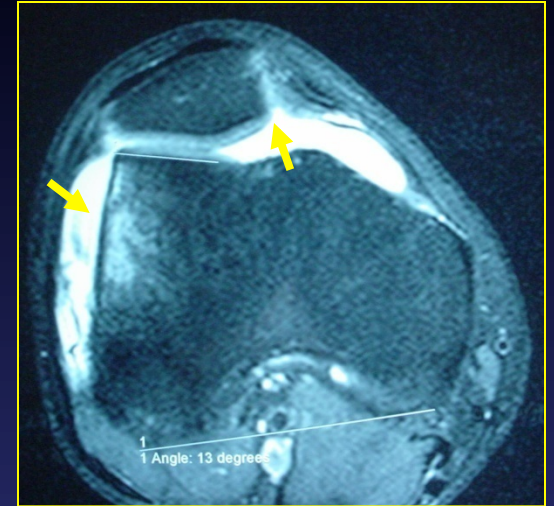
MARCO ANTONIO PERCOPE DE ANDRADE

POINTS TO BE CONSIDERED

1- ACUTE TRAUMA (FIRST EPISODE)

2- PRESENCE OF PREDISPONENT FACTORS

3- PRESENCE OF OSTEOCHONDRAL FRACTURES

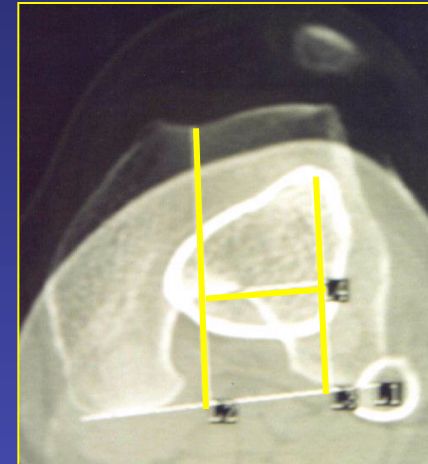
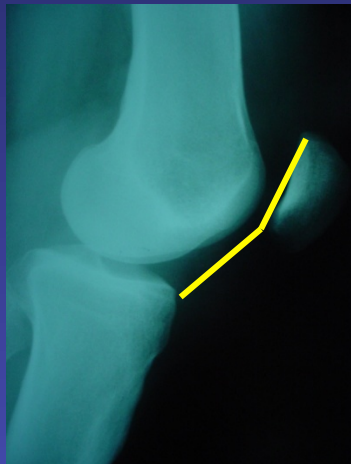


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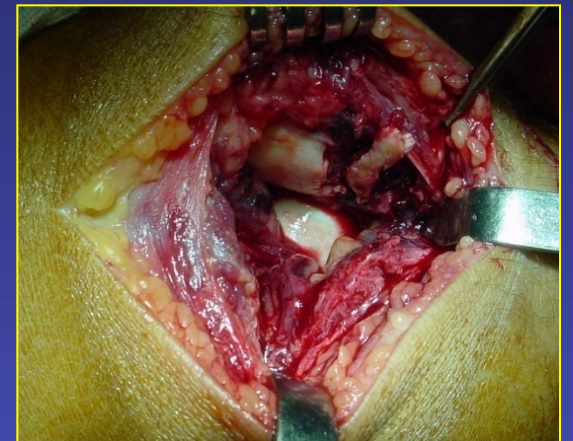
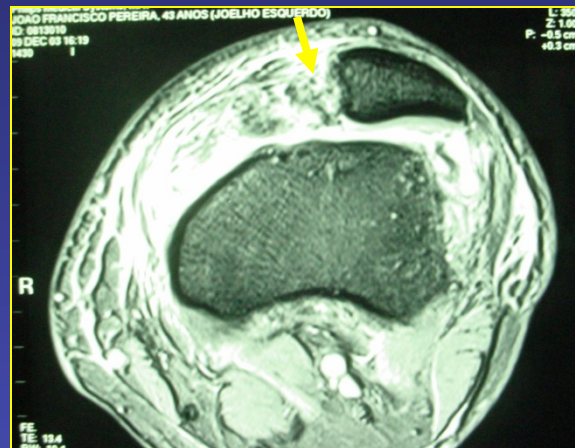
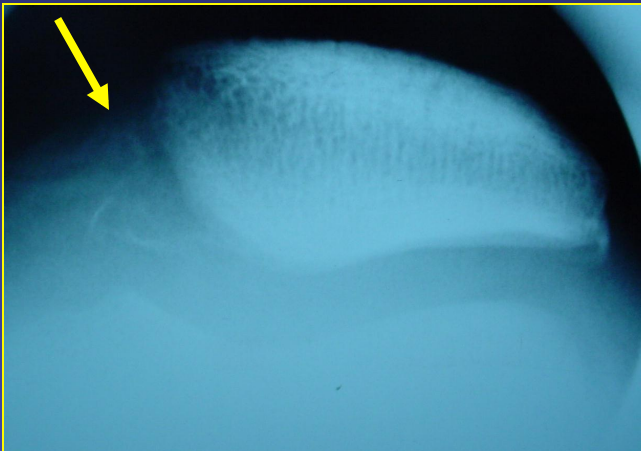


POINTS TO BE CONSIDERED

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HYPOTHESIS

ACUTE DISLOCATION OF THE PATELLA

1- SURGICAL TREATMENT IN THE PRESENCE OF AN OSTEOCHONDRAL FRACTURE

2- NON-SURGICAL TREATMENT WITH BRACE FOLLOWED FOR PHYSIOTHERAPY FOR ALL OTHER PATIENTS

LITERATURE

Ahmad et al

Immediate surgical repair of the medial patellar stabilizers for acute patellar dislocation A review of eight cases

AJSM 28, 2000, pp 804-810

8 PATIENTS

4 MALES - 4 FEMALES

MEDIUM AGE - 32 YEARS

DISTAL RUPTURE OF THE MPFL

RUPTURE OF THE VMO



ALL CASES

SURGICAL TREATMENT IN ALL CASES

Ahmad et al

Immediate surgical repair of the medial patellar stabilizers for acute patellar dislocation A review of eight cases

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8 PATIENTS

4 MALES - 4 FEMALES

MEDIUM AGE - 32 YEARS

DISTAL RUPTURE OF THE MPFL

RUPTURE OF THE VMO



ALL CASES

NO DISLOCATIONS

LIMITATION OF FLEXION IN 4 CASES

Ahmad et al

Immediate surgical repair of the medial patellar stabilizers for acute patellar dislocation A review of eight cases

AJSM 28, 2000, pp 804-810

8 PATIENTS

4 MALES - 4 FEMALES

MEDIUM AGE - 32 YEARS

DISTAL RUPTURE OF THE MPFL

MEDIAL RUPTURE



ALL CASES

CONCLUSION

VMO AND LFPM REPAIR SHOULD BE DONE

Fithian, DC

Epidemiology and Natural History of Acute Patellar Dislocation

AJSM 32, 2004, pp 1114-1121

2 GROUPS

MINIMUM FOLLOW UP - 2 YEARS

1- FIRST DISLOCATION - 125 PATIENTS

MEDIUM AGE 16 YEARS (9-67) 52% FEMALE GENDER

61% WITH SPORTS ACTIVITY

2- PREVIOUS DISLOCATION OR SUBLUXATION - 64 PATIENTS

MEDIUM AGE 21 YEARS (8-65) 70% FEMALE GENDER

47% WITH SPORTS ACTIVITY

Fithian, DC

Epidemiology and Natural History of Acute Patellar Dislocation

AJSM 32, 2004, pp 1114-1121

2 GROUPS

MINIMUM FOLLOW UP - 2 YEARS

1- FIRST DISLOCATION - 125 PATIENTS

17% NEW EPISODES OF DISLOCATION

2- PREVIOUS DISLOCATION OR SUBLUXATION -64 PATIENTS

49% NEW EPISODES OF DISLOCATION

Fithian, DC

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1- FIRST DISLOCATION - 125 PATIENTS

17% NEW EPISODES OF DISLOCATION

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49% NEW EPISODES OF DISLOCATION

MRI

**NO CORRELATION BETWEEN MEDIAL RETINACULUM RUPTURE
AND NEW EPISODES OF DISLOCATION**

Fithian, DC

Epidemiology and Natural History of Acute Patellar Dislocation

AJSM 32, 2004, pp 1114-1121

2 GROUPS

MINIMUM FOLLOW UP - 2 YEARS

1- FIRST DISLOCATION - 125 PATIENTS

17% NEW EPISODES OF DISLOCATION

**2- PREVIOUS DISLOCATION OR SUBLUXATION - 64
PACIENTES**

49% NEW EPISODES OF DISLOCATION

MRI

**TREND TOWARD LOWER RISK OF SUBSEQUENT DISLOCATION
WHEN THERE WAS MEDIAL RETINACULUM OR MPFL RUPTURE**

Sillanpaa et al

*Arthroscopic surgery for primary traumatic patellar dislocation
a prospective, nonrandomized study comparing patients treated with and without
acute arthroscopic stabilization with a median 7-year follow up
AJSM 36, 2008, pp 2301-2309*

76 PATIENTS

MEDIUM FOLLOW UP - 7 YEARS

30 PATIENTS



ARTHROSCOPIC REPAIR

46 PATIENTS



WITHOUT REPAIR

Sillanpaa et al

*Arthroscopic surgery for primary traumatic patellar dislocation
a prospective, nonrandomized study comparing patients treated with and without
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AJSM 36, 2008, pp 2301-2309*

76 PATIENTS

MEDIUM FOLLOW UP - 7 YEARS

30 PATIENTS **→** **ARTHROSCOPIC REPAIR**

46 PATIENTS **→** **WITHOUT REPAIR**

RESULTS

23% RE-DISLOCATION RATE IN THE GROUP WITHOUT REPAIR

19% RE-DISLOCATION RATE IN THE GROUP WITH REPAIR

p=0,84

Sillanpaa et al

*Arthroscopic surgery for primary traumatic patellar dislocation
a prospective, nonrandomized study comparing patients treated with and without
acute arthroscopic stabilization with a median 7-year follow up
AJSM 36, 2008, pp 2301-2309*

76 PATIENTS

MEDIUM FOLLOW UP - 7 YEARS

30 PATIENTS

→ ARTHROSCOPIC REPAIR

46 PATIENTS

→ WITHOUT REPAIR

CONCLUSION

ARTHROSCOPIC REPAIR OF THE MEDIAL RETINACULUM DOES NOT IMPROVE

PATELLAR STABILITY NOR DECREASES THE RE-DISLOCATION RATE

Buchner, M et al
Acute traumatic primary patellar dislocation
Long-term results comparing conservative and surgical treatment
Clin J Sport Med 15 2005 pp 62-66

126 PATIENTS

MEDIUM FOLLOW UP – 8.1 YEARS

63 PATIENTS		CONSERVATIVE TREATMENT
20 PATIENTS		DIAGNOSTIC ARTHROSCOPY
37 PATIENTS		MEDIAL RECONSTRUCTION
6 PATIENTS		OSTEOCHONDRAL FIXATION

Buchner, M et al

Acute traumatic primary patellar dislocation

Long-term results comparing conservative and surgical treatment

Clin J Sport Med 15 2005 pp 62-66

126 PATIENTS

MEDIUM FOLLOW UP – 8.1 YEARS

RESULTS

26% RE-DISLOCATION RATE

85% EXCELLENT / GOOD RESULTS

(LYSHOLM)

71% SUBJECTIVE GOOD RESULTS

Buchner, M et al

Acute traumatic primary patellar dislocation

Long-term results comparing conservative and surgical treatment

Clin J Sport Med 15 2005 pp 62-66

126 PATIENTS

MEDIUM FOLLOW UP – 8.1 YEARS

RESULTS

NO DIFFERENCES AMONG GROUPS RELATED TO

- RE-DISLOCATION RATE***
- RE-OPERATION***
- LEVEL OF ACTIVITY***
- CLINICAL OR FONCTIONAL RESULTS***

Buchner, M et al

Acute traumatic primary patellar dislocation

Long-term results comparing conservative and surgical treatment

Clin J Sport Med 15 2005 pp 62-66

126 PATIENTS

MEDIUM FOLLOW UP – 8.1 YEARS

26% RE-DISLOCATION RATE

85% EXCELLENT / GOOD RESULTS

71% SUBJECTIVE GOOD RESULTS

CONCLUSION

CONSERVATIVE TREATMENT SEEMS TO BE THE CHOICE FOR ACUTE

PATELLAR DISLOCATION

Stefancin, JJ & Parker, RD
First-time Traumatic Patellar Dislocation
A Systematic Review
CORR 455, 2007 pp 93-101

SYSTEMATIC REVIEW OF 70 PAPERS
LEVELS I-IV

HOW TO TREAT AND DIAGNOSE ACUTE PATELLAR DISLOCATION
ACCORDING TO EVIDENCE BASED MEDICINE

Stefancin, JJ & Parker, RD
First-time Traumatic Patellar Dislocation
A Systematic Review
CORR 455, 2007 pp 93-101

SYSTEMATIC REVIEW OF 70 PAPERS
LEVELS I-IV

HOW TO TREAT AND DIAGNOSE ACUTE PATELLAR DISLOCATION
ACCORDING TO EVIDENCE BASED MEDICINE

OSTEOCHONDRAL FRACTURE RATE — 24.3%

MEDIUM RE-DISLOCATION RATE — 48%

Stefancin, JJ & Parker, RD
First-time Traumatic Patellar Dislocation
A Systematic Review
CORR 455, 2007 pp 93-101

SYSTEMATIC REVIEW OF 70 PAPERS
LEVELS I-IV

***HOW TO TREAT AND DIAGNOSE ACUTE PATELLAR DISLOCATION
ACCORDING TO EVIDENCE BASED MEDICINE***

KNEE JOINT ASPIRATION

1- INCREASES COMFORT

2- HELPS IN DIAGNOSIS

***3- LARGE VOLUME OF HEMARTROSIS SUGGESTS LESION OF THE
MEDIAL STABILIZERS OR OSTEOCHONDRAL FRACTURE***

4- PRESENCE OF FAT INDICATES OSTEOCHONDRAL FRACTURE

Stefancin, JJ & Parker, RD
First-time Traumatic Patellar Dislocation
A Systematic Review
CORR 455, 2007 pp 93-101

SYSTEMATIC REVIEW OF 70 PAPERS

5 PAPERS COMPARE CONSERVATIVE TO SURGICAL TREATMENT

ALL OF THEM RECOMMEND INITIAL CONSERVATIVE TREATMENT

***ARTHROSCOPY INDICATED WHEN THERE IS OSTEOCHONDRAL
FRACTURE (ARTHROSCOPIC OR OPEN REPAIR INDICATED)***

***CONSERVATIVE AND SURGICAL TREATMENT HAVE SIMILAR
RESULTS AFTER 2 YEARS OF FOLLOW UP***

MAJOR COMPLICATION ONLY AFTER SURGICAL TREATMENT

Sillanpaa et al

Treatment with and without initial stabilizing surgery for primary traumatic patellar dislocation

A prospective randomized study

JBJS 91A, 2009, pp 263-273

40 PATIENTS

MEDIUM AGE - 20 YEARS

MEDIUM FOLLOW UP - 7 YEARS

22 PATIENTS



TREATMENT WITH BRACE

18 PATIENTS



SURGICAL STABILIZATION

MRI SHOWING HEMARTHROSIS, MEDIAL RETINACULUM AND MPFL RUPTURE IN ALL PATIENTS

Sillanpaa et al

Treatment with and without initial stabilizing surgery for primary traumatic patellar dislocation

A prospective randomized study

JBJS 91A, 2009, pp 263-273

40 PATIENTS

MEDIUM AGE - 20 YEARS

MEDIUM FOLLOW UP - 7 YEARS

RESULTS

RE-DISLOCATION

6 IN THE NON-OPERATED GROUP

0 IN THE OPERATED GROUP

PAINFUL SUBLUXATION

4 IN THE NON-OPERATED GROUP

2 IN THE OPERATED GROUP

Sillanpaa et al

Treatment with and without initial stabilizing surgery for primary traumatic patellar dislocation

A prospective randomized study

JBJS 91A, 2009, pp 263-273

40 PATIENTS

MEDIUM AGE - 20 YEARS

MEDIUM FOLLOW UP - 7 YEARS

RESULTS

MEDIUM KUJALA SCORE

90 POINTS IN THE NON-OPERATED GROUP

91 POINTS IN THE OPERATED GROUP

Sillanpaa et al

Treatment with and without initial stabilizing surgery for primary traumatic patellar dislocation

A prospective randomized study

JBJS 91A, 2009, pp 263-273

40 PATIENTS

MEDIUM AGE - 20 YEARS

MEDIUM FOLLOW UP - 7 YEARS

CONCLUSION

LOWER RE-DISLOCATION RATE IN THE OPERATED GROUP

CLINICAL AND FUNCTIONAL RESULTS QUITE SIMILAR IN BOTH GROUPS

NO BENEFITS WERE SEEN IN SURGICAL TREATMENT IN A LONG PERIOD OF FOLLOW UP

Camanho et al

Conseervative versus surgical treatment for repair of the medial patellofemoral ligament in acute dislocations of the patella

Arthroscopy 25, 2009, pp 620-635

33 PATIENTS

GROUP I - 16 PATIENTS

CONSERVATIVE TREATMENT

GROUP II - 17 PATIENTS

SURGICAL TREATMENT

RE-DISLOCATION RATE

8 PATIENTS GROUP I

0 PATIENTS IN GROUP II

Camanho et al

Conseervative versus surgical treatment for repair of the medial patellofemoral ligament in acute dislocations of the patella

Arthroscopy 25, 2009, pp 620-635

33 PATIENTS

GROUP I - 16 PATIENTS

CONSERVATIVE TREATMENT

GROUP II - 17 PATIENTS

SURGICAL TREATMENT

KUJALA SCORE

GROUP I 69 POINTS

GROUP II 92 POINTS

Camanho et al

Conseervative versus surgical treatment for repair of the medial patellofemoral ligament in acute dislocations of the patella

Arthroscopy 25, 2009, pp 620-635

33 PATIENTS

GROUP I - 16 PATIENTS

CONSERVATIVE TREATMENT

GROUP II - 17 PATIENTS

SURGICAL TREATMENT

CONCLUSION

SURGICAL TREATMENT GAVE BETTER RESULTS

Sillanpää et al.

Femoral Avulsion of the Medial Patellofemoral Ligament After Primary Traumatic Patellar Dislocation Predicts Subsequent Instability in Men

A Mean 7-Year Nonoperative Follow-Up Study

AJSM 37: 1513-1521, 2009

COHORT STUDY – LEVEL OF EVIDENCE III

53 MALE PATIENTS

TREATED NON-SURGICALLY WITH THE SAME METHOD

INITIAL LOCATION OF MPFL TEAR EVALUATED BY MRI

FEMORAL AVULSION - 35 PATIENTS

PATELLAR AVULSION - 7 PATIENTS

MIDSUBSTANCE TEAR - 11 PATIENTS

Sillanpää et al.

Femoral Avulsion of the Medial Patellofemoral Ligament After Primary Traumatic Patellar Dislocation Predicts Subsequent Instability in Men

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AJSM 37: 1513-1521, 2009

COHORT STUDY-LEVEL OF EVIDENCE III

42 PATIENTS

SEEN AT MEAN 7-YEAR FOLLOW UP

PATELLAR INSTABILITY - 15 PATIENTS

13 PATIENTS - FEMORAL AVULSION

1 PATIENT - MIDSUBSTANCE TEAR

1 PATIENT - PATELLAR AVULSION

p=0,01

Sillanpää et al.

Femoral Avulsion of the Medial Patellofemoral Ligament After Primary Traumatic Patellar Dislocation Predicts Subsequent Instability in Men

A Mean 7-Year Nonoperative Follow-Up Study

AJSM 37: 1513-1521, 2009

COHORT STUDY-LEVEL OF EVIDENCE III

42 PATIENTS

SEEN AT MEAN 7-YEAR FOLLOW UP

PATELLAR REDISLOCATION - 9 PACIENTES

8 PATIENTS - FEMORAL AVULSION

1 PATIENT - MIDSUBSTANCE TEAR

p=0,05

Sillanpää et al.

Femoral Avulsion of the Medial Patellofemoral Ligament After Primary Traumatic Patellar Dislocation Predicts Subsequent Instability in Men

A Mean 7-Year Nonoperative Follow-Up Study

AJSM 37: 1513-1521, 2009

COHORT STUDY – LEVEL OF EVIDENCE III

KUJALA SCORE

FEMORAL AVULSION 90 POINTS

PATELAR AVULSION 91 POINTS

MIDSUBSTANCE TEAR 96 POINTS

p=0.76

PROPORTION OF PATIENTS WHO REGAINED THEIR PREINJURY ACTIVITY LEVEL WAS SMALLER AMONG THOSE WITH FEMORAL AVULSION

Sillanpää et al.

Femoral Avulsion of the Medial Patellofemoral Ligament After Primary Traumatic Patellar Dislocation Predicts Subsequent Instability in Men

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COHORT STUDY – LEVEL OF EVIDENCE III

CONCLUSION

*MPFL AVULSION AT FEMORAL INSERTION INDICATES
SUBSEQUENT PATELLAR INSTABILITY*

*LOCATION MUST BE TAKEN IN ACCOUNT WHEN
PLANNING TREATMENT*

SUMMARY

1- SURGICAL TREATMENT SHOULD BE CONSIDERED:

- WHEN THERE IS AN OSTEOCHONDRAL FRACTURE***
- WITH FEMORAL AVULSION???***

SUMMARY

2- RECENT PAPERS SHOWING LESSER RECURRENT RATE WITH SURGICAL TREATMENT

- 1 OF THEM WITH SIMILAR CLINICAL RESULTS

Sillanpaa et al

- 1 OF THEM WITH BETTER CLINICAL RESULTS WITH SURGICAL TREATMENT

Camanho et al

SUMMARY

3- RECURRENCE RATE SUPPOSED TO BE HIGHER IN FEMORAL AVULSIONS

Sillanpaa et al

SUMMARY

***THERE IS NO CLEAR EVIDENCE IN LITERATURE
THAT SURGICAL TREATMENT IS SUPERIOR TO
NON SURGICAL TREATMENT, EVEN THOUGH
RECURRENCE RATE IS LOWER IN SURGICAL
TREATMENT***

THANKS



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