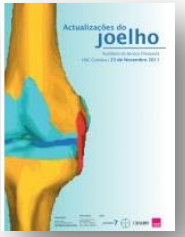
Como tratar a condropatia patelo-femoral ?

Fernando Fonseca

Do que falamos?

- Sindrome de dor patelo-femoral (SRD)?
- Instabilidade patelo-femoral?
- Osteoartrose patelo-femral?

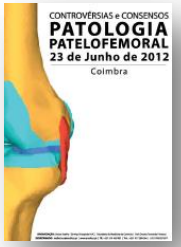
DO PASSADO AO PRESENTE...



- Dor anterior do joelho
  - Alterações internas do joelho
  - Condromalácia da patela

- *"CT-Assisted Classification of Patellofemoral pain"*, Schutzer et al., 1986, Orthop. Cli. of N. A.
  - IDK: "I don't Know"
  - CMP: "Could be – May be – Possible be"

DO PASSADO AO PRESENTE...



- *"CT-Assisted Classification of Patellofemoral pain"*, Schutzer et al., 1986, Orthop. Cli. of N. A.

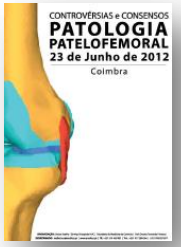
  - ***I**nternal **D**isarrangement of the **K**nee* **(IDP)**

    IDK: "I don't Know"

  - ***C**hondro**M**alacia of the **P**atella* **(CMP)**

    CMP: "Could be – May be – Possible be"

CLASSIFICAÇÃO E ETIOLOGIA



Knee Surg Sports Traumatol Arthrosc. 1994;2(1):19-26.

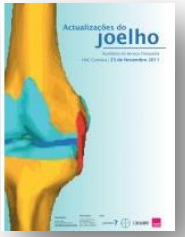
Factors of patellar instability: an anatomic radiographic study.

Dejour H, Walch G, Nove-Josserand L, Guier C.
Clinique Chirurgicale Orthopédique et Traumatologique, Centre Hospitalier Lyon-Sud, Pierre-Benite, France.

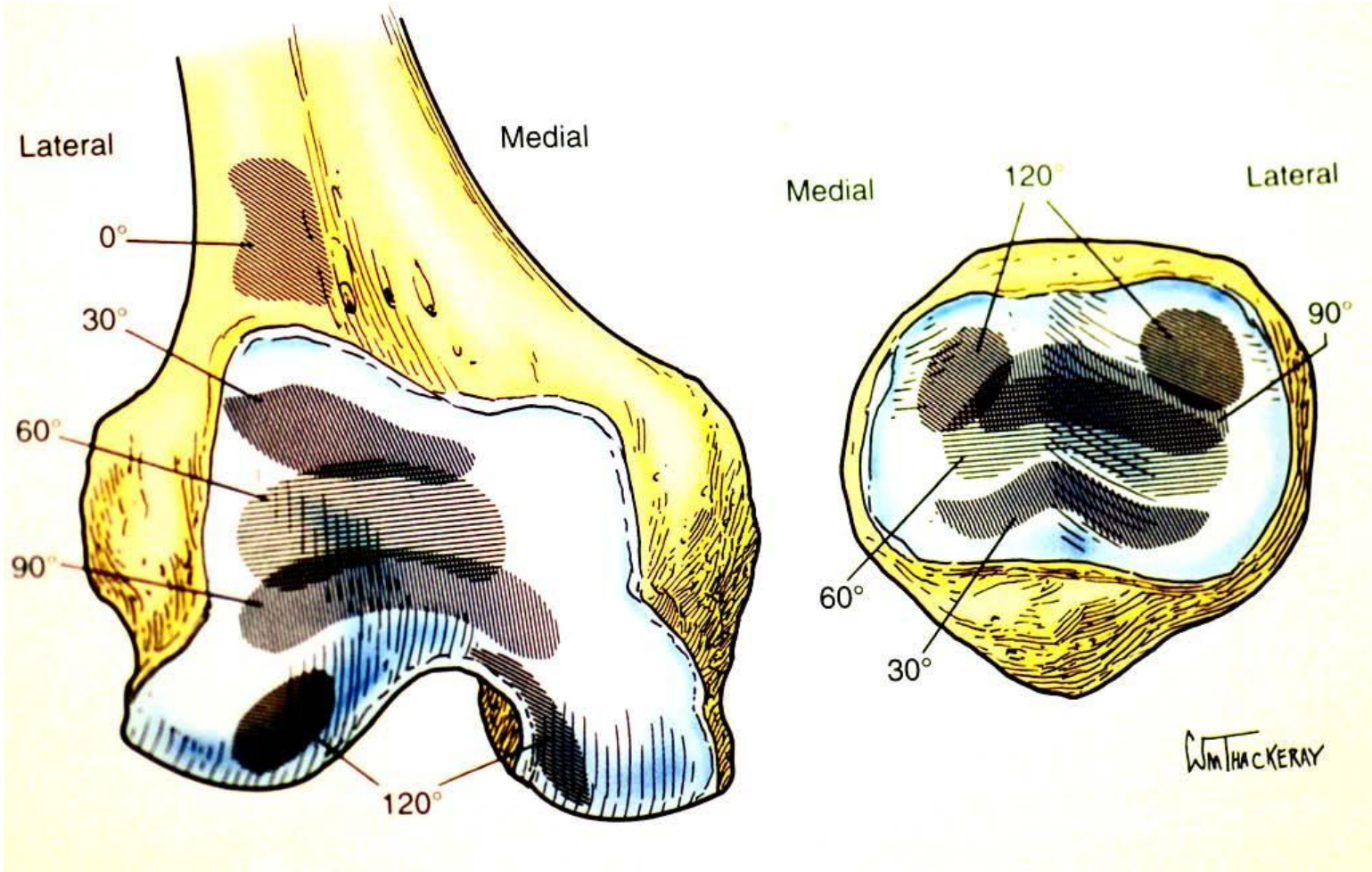
1) Síndrome Doloroso Patelo Femoral
2) Instabilidade Patelar Potencial
3) **Instabilidade Patelar Objetiva**

(CT; n=143 Joelhos)

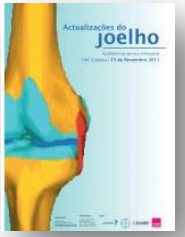
- Displasia troclear (85%)
- Displasia do *Quadriceps Femoralis* (83%) – *Tilt* patelar > 20%
- Patela alta – ICD > 1.2 (24%)
- TA-GT > 20 mm (56%)



BIOMECÂNICA PATELO-FEMORAL



BIOMECÂNICA PATELO-FEMORAL

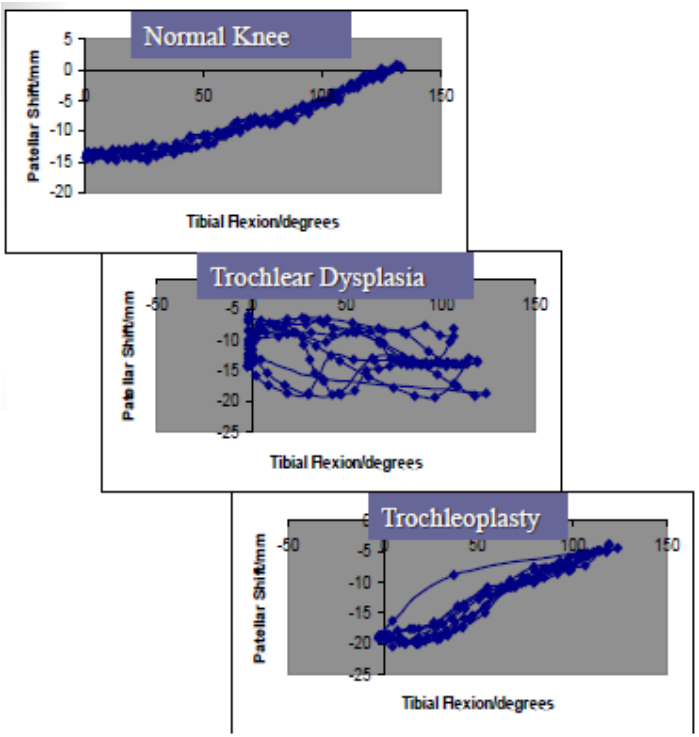


J Bone Joint Surg Br. 2008 Jul;90(7):864-9.

The effect of trochleoplasty on patellar stability and kinematics: a biomechanical study in vitro.

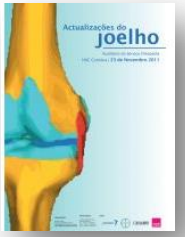
Amis AA, Oguz C, Bull AM, Senavongse W, Dejour D.

Department of Mechanical Engineering, Imperial College London, London, England. a.amis@imperial.ac.uk



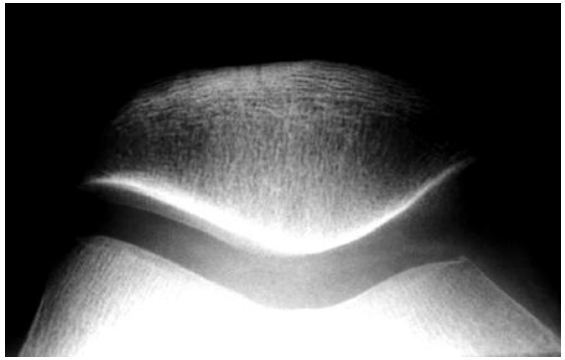
Avaliação Biomecânica do *Tracking* Patelar

Patogénese

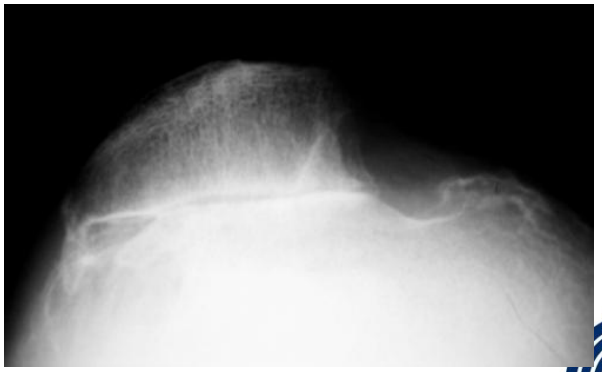


- *"Patellar Malalignment Syndrome"*, John Insall, 1979
- *"Homesotasis theory"*, Scott F. Dye, 1990s: Pressão suprafisiológica em joelhos anatómicamente normais
- "*Neural Model*", Vicent Sanchis-Alfonso et al., 2001

Neuro- Imuno- Modulatória



Porquê ?



Dimensão problema

- Da literatura
  - Curl reporta 63% lesões condrais em 31.000 artroscopias
  - Hjielle reporta 61% lesões condrais em 1000 artroscopias, sendo a maioria no condilo femoral medial

Curl WW, Krome J, Gordon ES, et al. Cartilage injuries: a review of 31,516 knee arthroscopies. Arthroscopy. 1997;13(4):456–60.
Hjelle K, Solheim E, Strand T, et al. Articular cartilage defects in 1,000 knee arthroscopies. Arthroscopy. 2002;18(7):730–4.
Widuchowski WW, Widuchowski JJ, Trzaska TT. Articular cartilage defects: study of 25,124 knee arthroscopies. Knee.2007;14(3):177–82.

Dimensão problema

- Registo pessoal
  - 1712 artroscopias por outras causas que não patologia patelo-femoral
    - Em 548 existiam alterações da cartilagem (32%) patelar

Significado ?

Contents lists available at SciVerse ScienceDirect

The Knee

Clinically insignificant association between anterior knee pain and patellofemoral lesions which are found incidentally

D.W. Elson [a,b,*], S. Jones [a,b], N. Caplan [a,c], A. St Clair Gibson [a,c], S. Stewart [a,c], D.F. Kader [a,b,c]

[a] North East Orthopaedic and Sports Injury Research Group, Tyne and Wear, UK
[b] Department of Orthopaedics, Queen Elizabeth Hospital, Gateshead, UK
[c] School of Life Sciences, Northumbria University, Newcastle upon Tyne, UK

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Anterior knee pain
Incidental patellofemoral lesions
Chondromalacia patella
Chondral pathology

ABSTRACT

Background: Patellofemoral chondral lesions are frequently identified incidentally during the arthroscopic treatment of other knee pathologies. A role has been described for arthroscopic debridement when symptoms are known to originate from pathology of the patellofemoral joint. However, it remains unclear how to manage lesions which are found incidentally whilst tackling other pathologies. The purpose of this study was to establish the strength of association between anterior knee pain and patellofemoral lesions identified incidentally in a typical arthroscopic population.

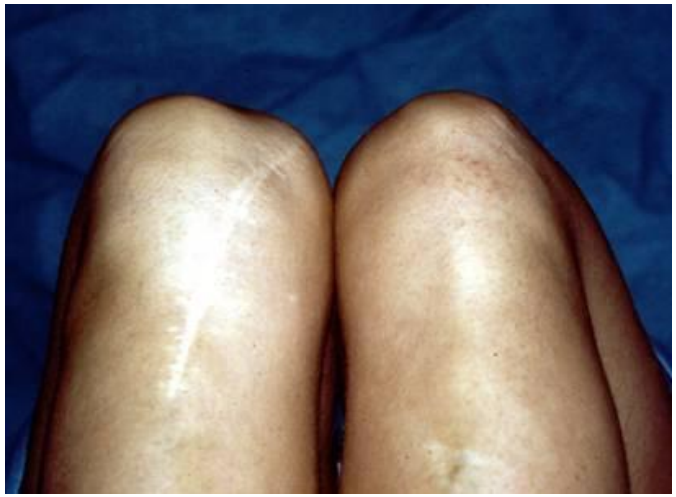
Methods: A consecutive series of patients undergoing arthroscopy for a range of standard indications formed the basis of this cross section study. We excluded those with patellofemoral conditions in order to identify patellofemoral lesions which were solely incidental. Pre-operative assessments were performed on 64 patients, where anterior knee pain was sought by three methods: an annotated photographic knee pain map (PKPM), patient indication with one finger and by palpated tenderness. A single blinded surgeon, performed standard arthroscopies and recorded patellofemoral lesions. Statistical correlations were performed to identify the association magnitude.

Results: Associations were identified between incidental patellofemoral lesions and tenderness palpated on the medial patella ($P = 0.007$, $\chi^2 = 0.32$) and the quadriceps tendon ($P = 0.029$, $\chi^2 = 0.26$), but these associations were at best fair, which could be interpreted as clinically insignificant.

Conclusion: Incidental patellofemoral lesions are not necessarily associated with anterior knee pain, we suggest that they could be left alone. This recommendation is only applicable to patellofemoral lesions which are found incidentally whilst addressing other pathology.

Clínica

- História clínica minuciosa
- Exame físico
  - Excursão rotuliana
  - Palpação das facetas articulares
  - Crepitação, Rabot, Zohelen
  - Sinal da apreeensão

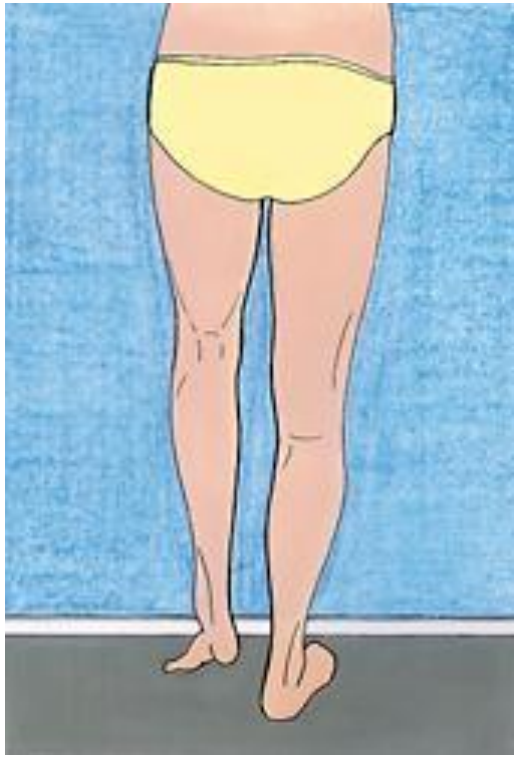


Dor rotuliana

- Presença de queixas álgicas no compartimento anterior do joelho agravadas com a sobrecarga femoro-patelar
  - dor a subir ou descer escadas
  - dor em posição de sentado
- Pode ser referida à região proximal da tíbia ou mesmo às zonas das goteiras para-rotulianas.
- Associação a
  - "bloqueio" (frequente)
  - hidrartrose (raramente)

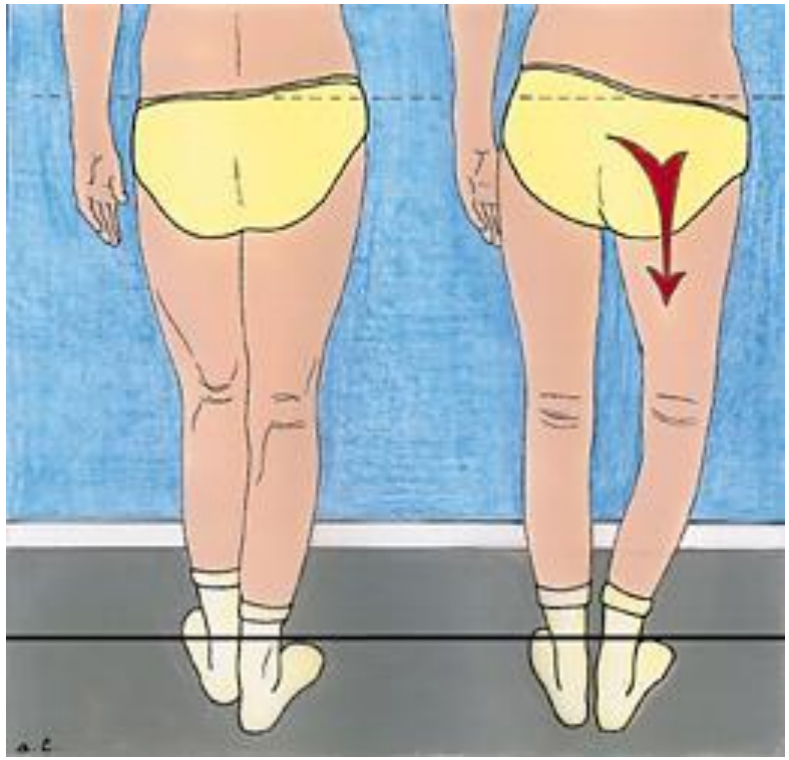
Bloqueio

- Bloqueio
  - dificuldade ou impossibilidade de extender o joelho



"Bloqueio"

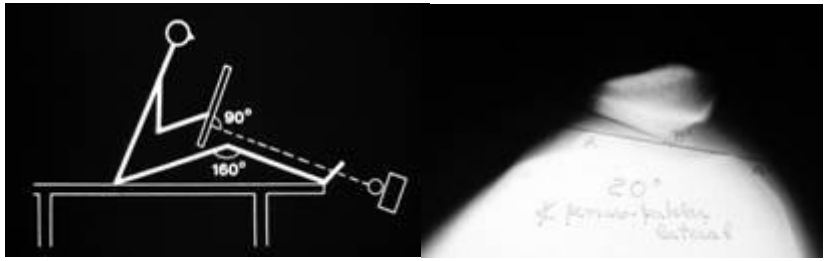
- Pseudo-bloqueio
  - dificuldade ou impossibilidade de flectir o joelho secundária à dor causada por este movimento



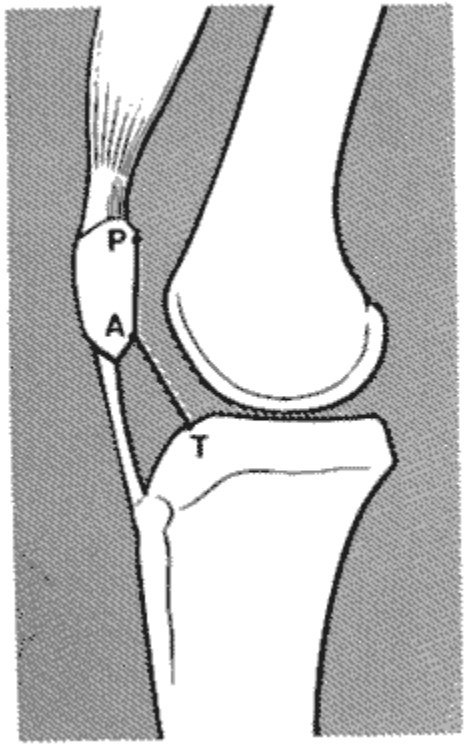
Hidrartrose

Meios auxiliares de diagnóstico

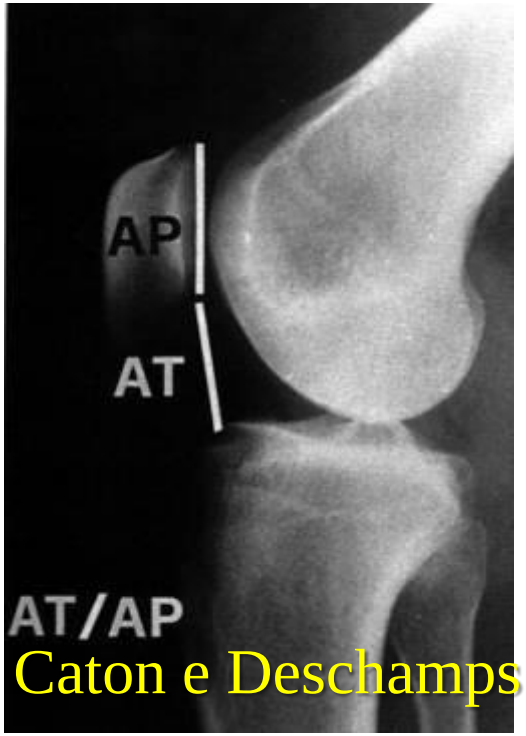
- Radiologia convencional
  - Face em carga
  - Perfil estrito a 30º flexão
  - Incidência axial rótula
    - Laurin
    - Merchant
- T.A.C.
  - Determinação da T.A.-G.T.
  - Determinação da báscula rotuliana



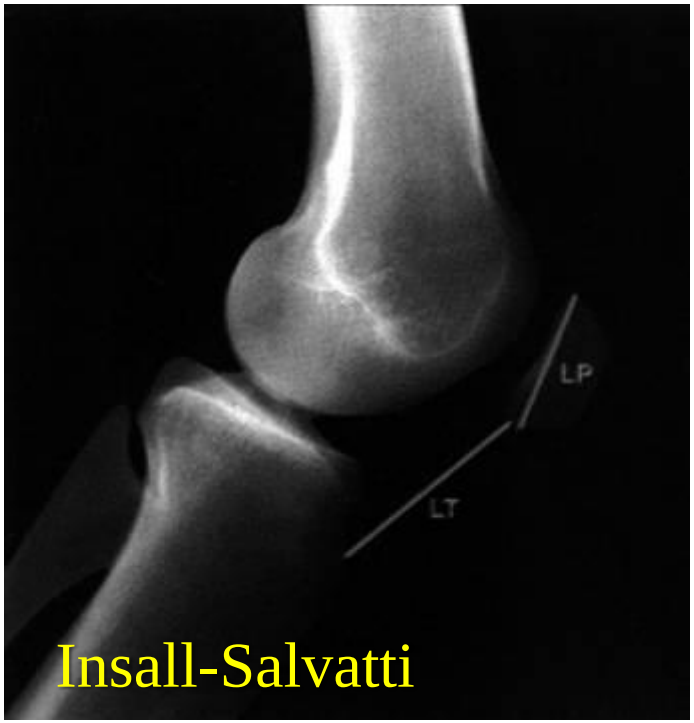
Altura rótula



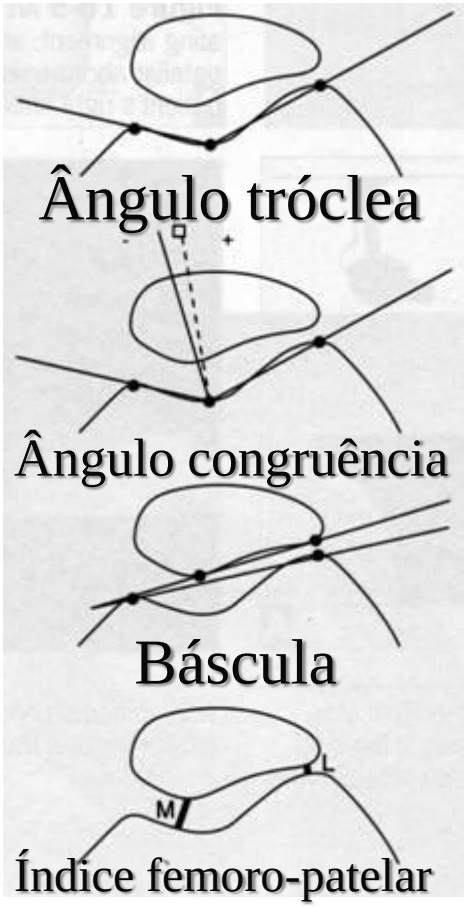
Indices de altura rotuliana

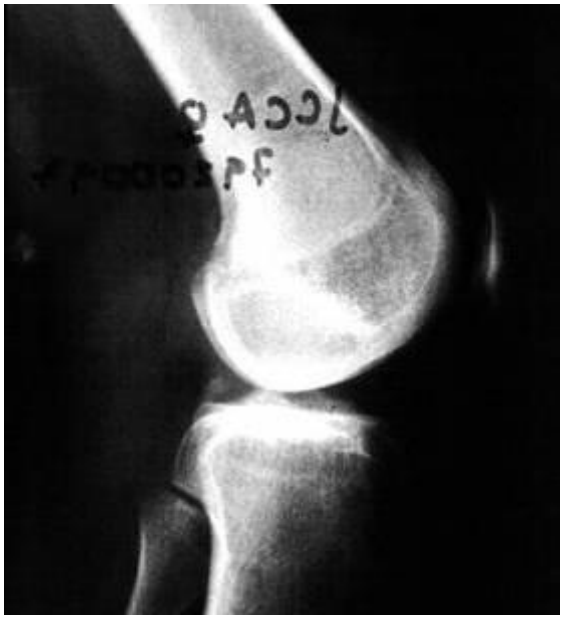


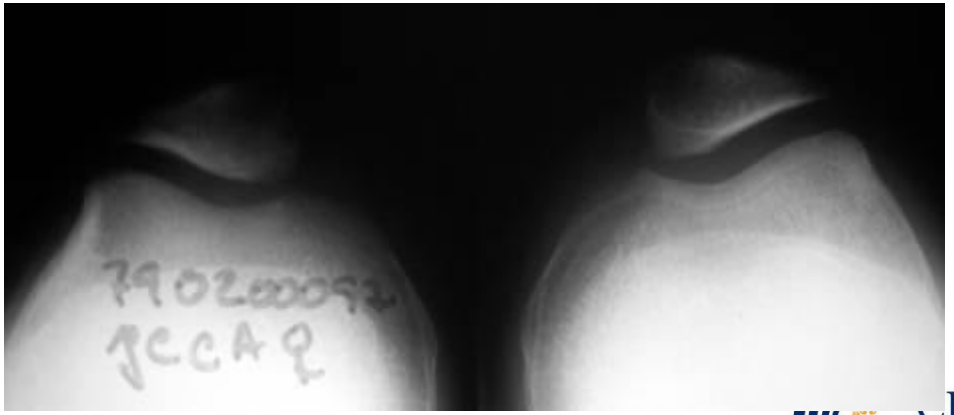
Caton e Deschamps



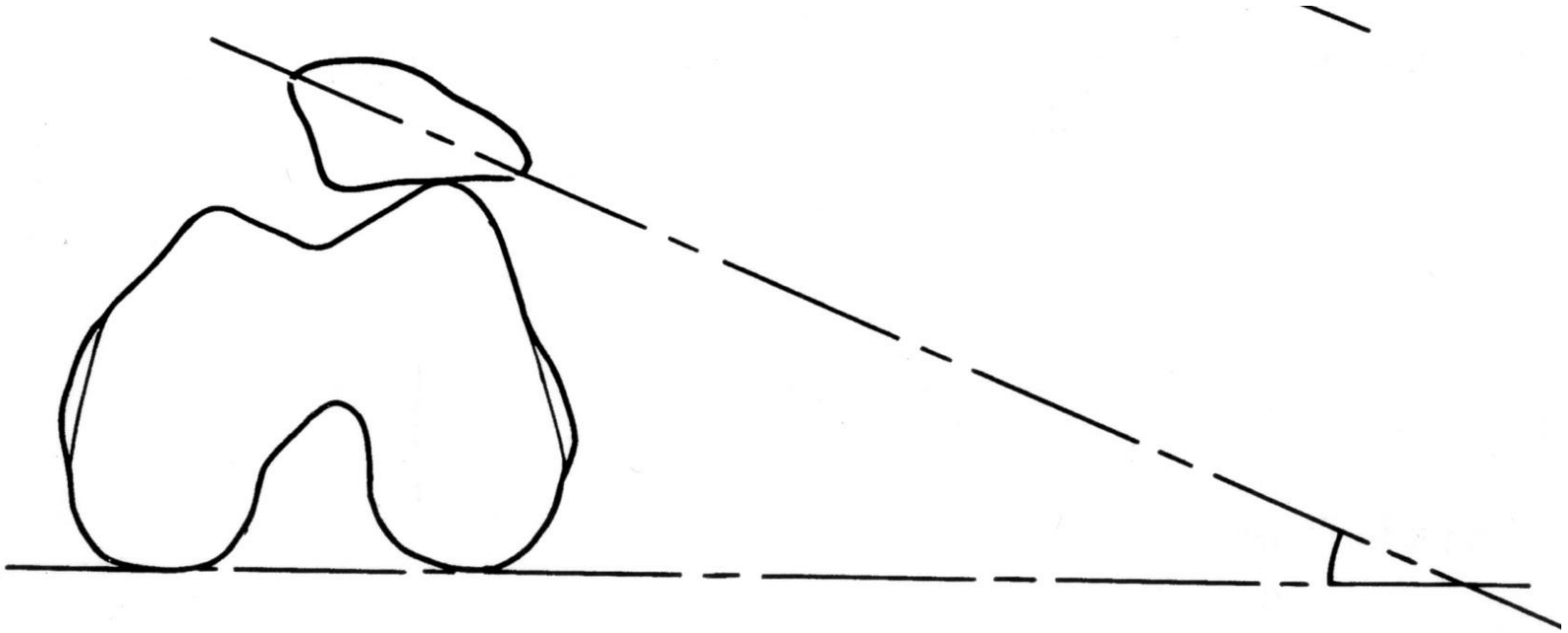
Insall-Salvatti


Ângulo tróclea
Ângulo congruência
Báscula
M
L
Índice femoro-patelar





Báscula rotuliana



Arch Orthop Traumat Surg 96, 303–304 (1980)

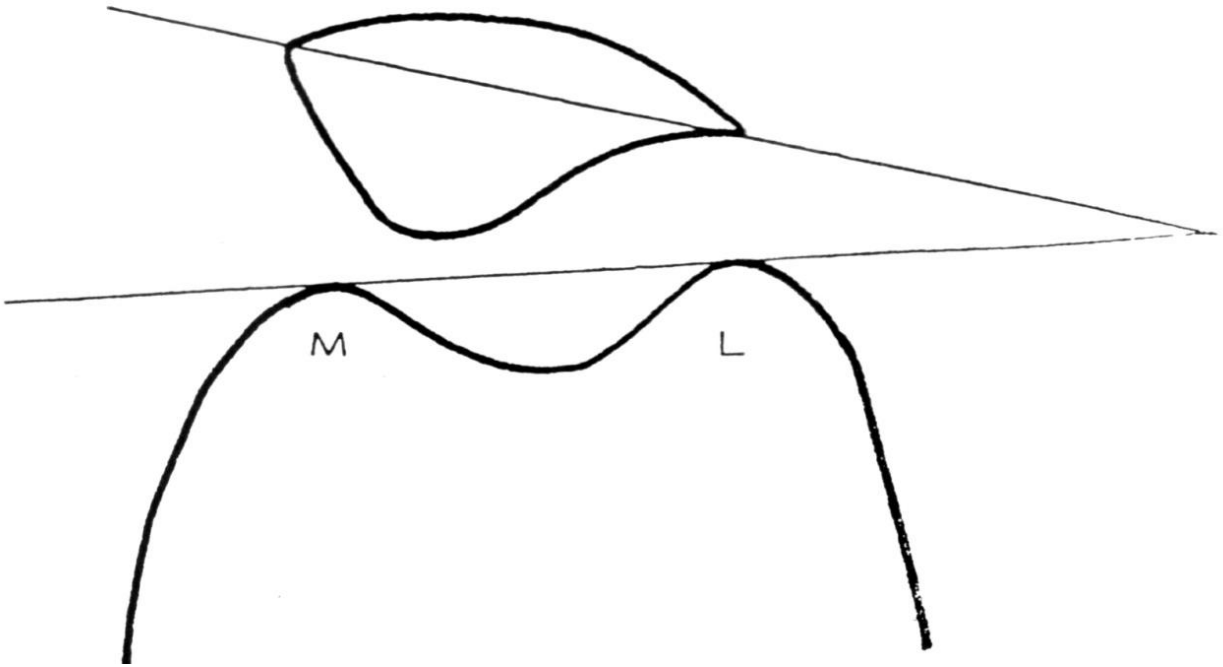
Archives of Orthopaedic and Traumatic Surgery

The Bicondylo-Patellar Angle as a Measure of Patellar Tilting

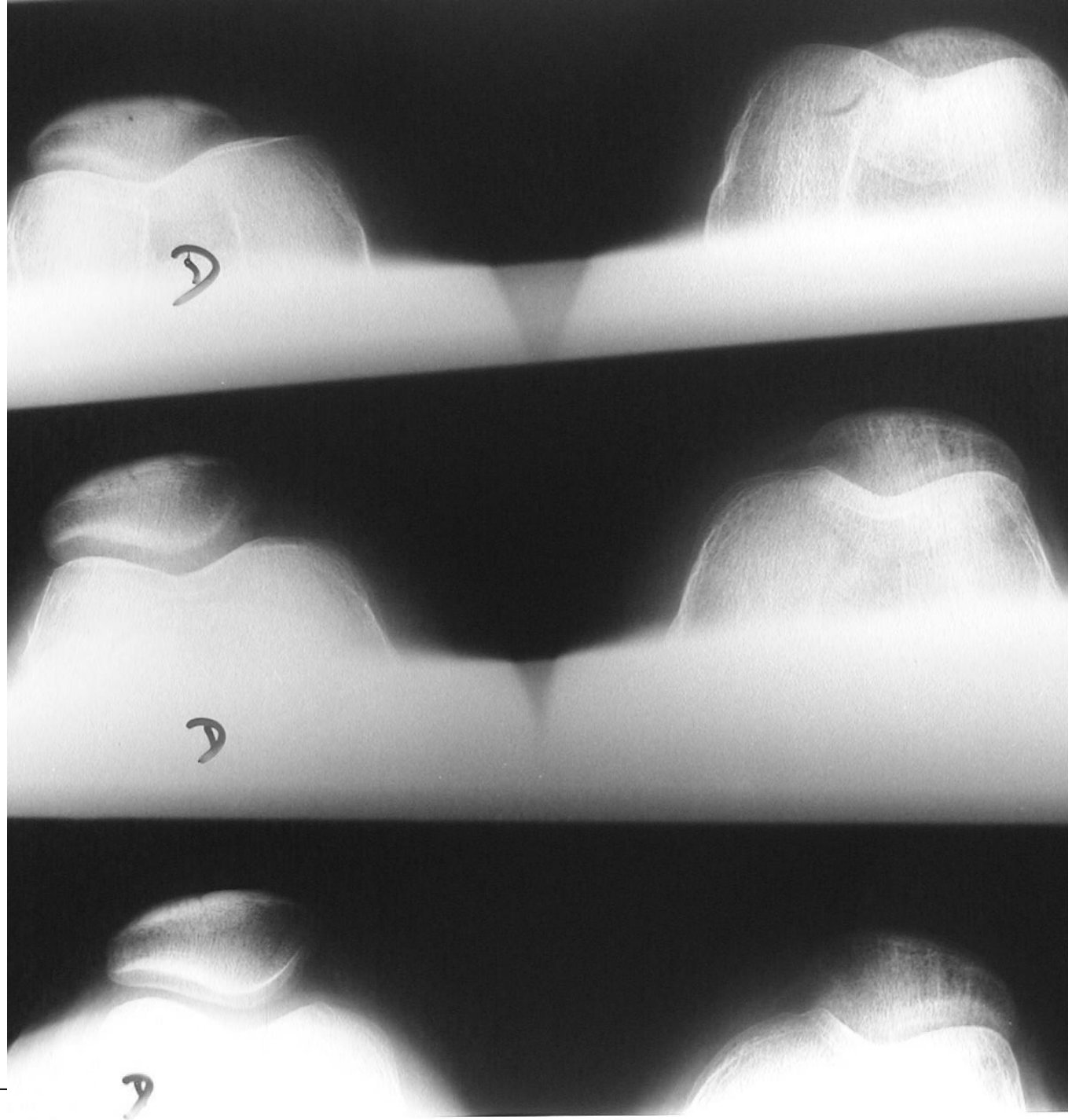
H. Delgado-Martins*
L'Hôpital Orthopédique de la Suisse Romande, CH-1000 Lausanne, Switzerland

- Arch Orthop Trauma Surg 1980;96(4):303-4
  - **The bicondylo-patellar angle as a measure of patellar tilting.**

Delgado-Martins H.



30º	**27,3**	±	**1,45**
60º	**12,0**	±	**0,63**
90º	**9,4**	±	**0,46**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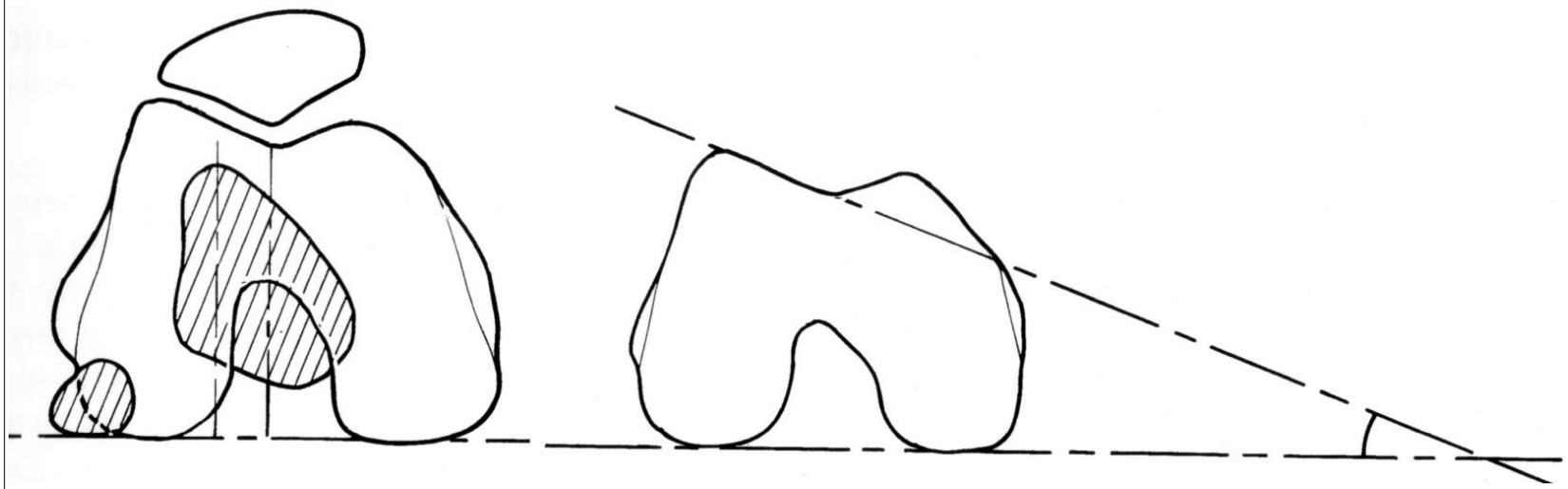
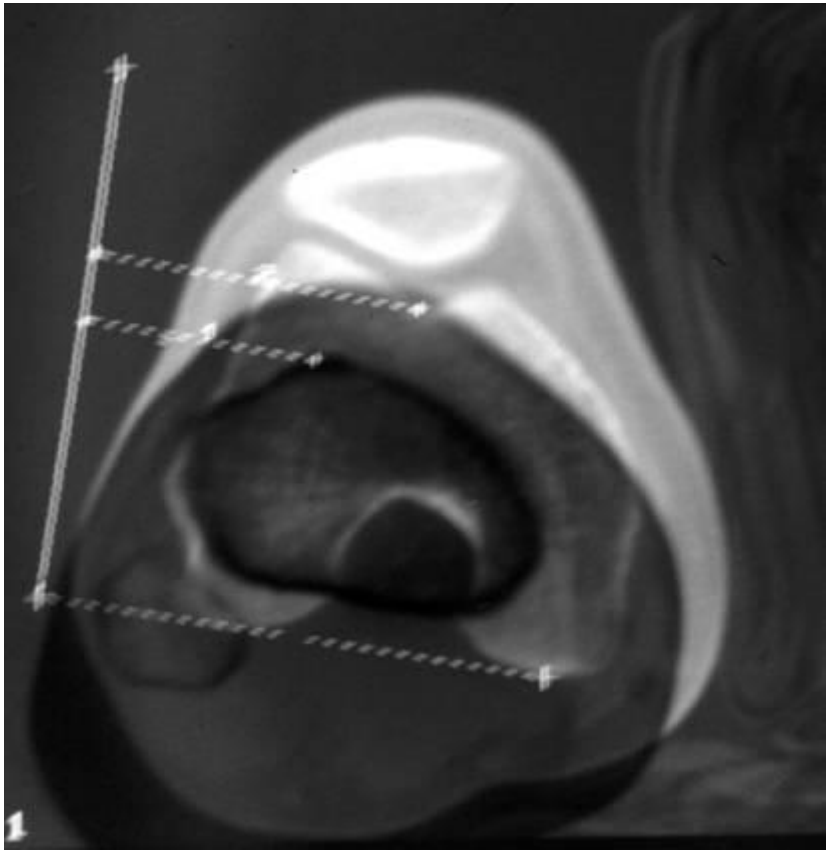
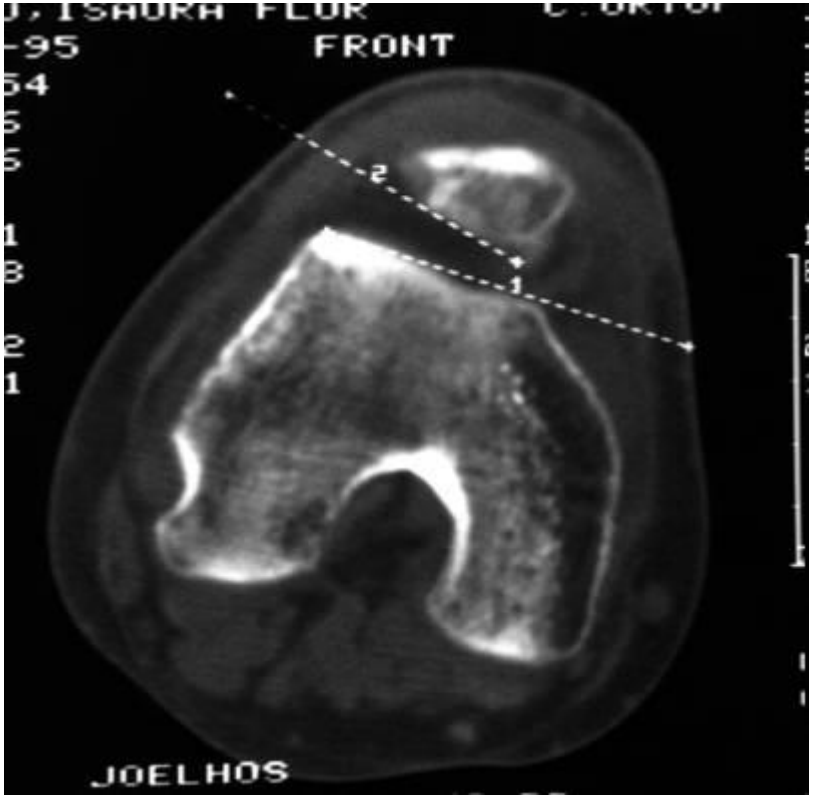
TA-GT



T.A.C.



T.A.C.



Tratamento

- Conservador (pelo menos 6 meses)
  - Analgésicos e AINE
  - Viscosuplementação
  - Corticóide i.a.
  - Fisioterapia
    - Exercícios em cadeia cinética fechada
    - Exercícios em cadeia cinética aberta
    - Reeducação
      - Muscular
      - Postural

Kramer K. Management of patellar and trochlear chondral injuries. Oper Tech Orthop. 2007;17(4):10–0
MD STC, MD JHB. Campbell's operative orthopaedics e-dition: text with continually updated online reference, 11e. 11(null) ed. Mosby; 2007
.

Tratamento conservador

- Repouso relativo
- Fortalecimento muscular do m. quadricipital
  - Utilização adjuvante da co-contracção dos adutores
- Alongamento dos m. isquio-tibiais

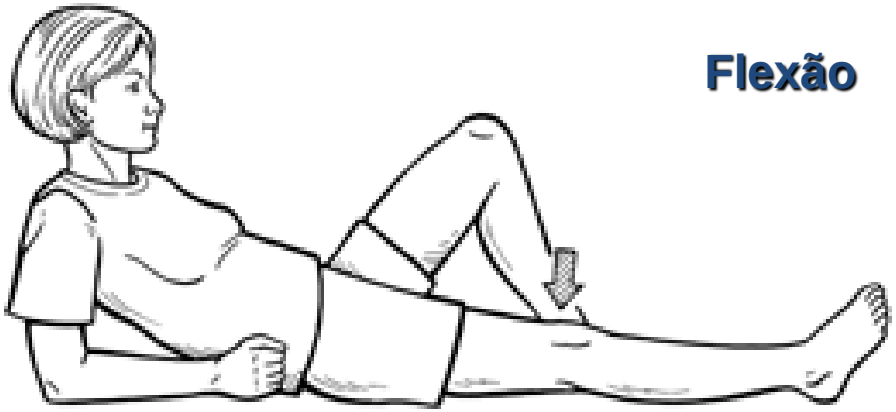
Tratamento conservador

- Repouso relativo
- Fortalecimento muscular do m. quadricipital
  - Utilização adjuvante da co-contracção dos adutores
- Alongamento dos m. isquio-tibiais
- Gelo, após o exercício

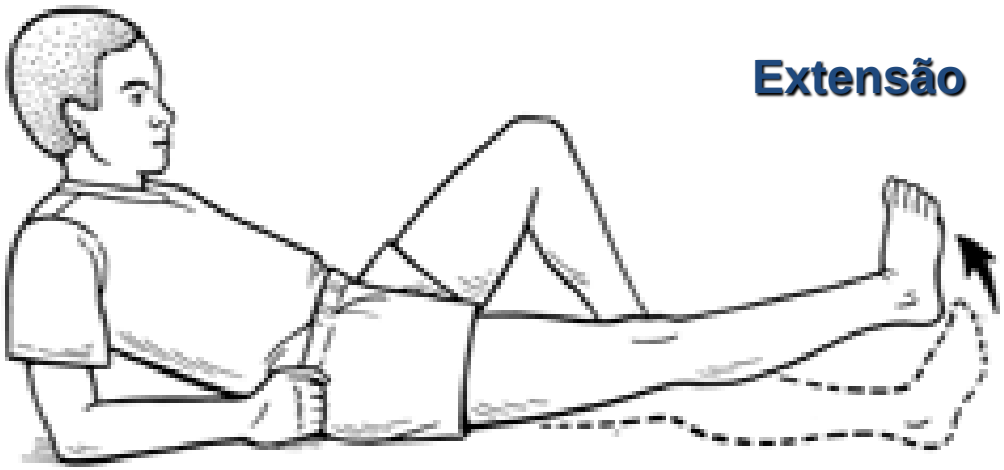
Alteração muscular/programa tratamento

Fragilidade do m. quadricipital	Fortalecimento quadricipital, e incidência no VMO
Banda ilio-tibial	Alongamento da banda ilio-tibial.
Músculos IT	Alongamento dos isquiotibiais
Músculos da coxa e anca	Fortalecimento dos adutores (O VMO origina-se no tendão do grande adutor). Fortalecer os músculos nadegueiros (estabilização da bacia).

Fortalecimento quadricipital

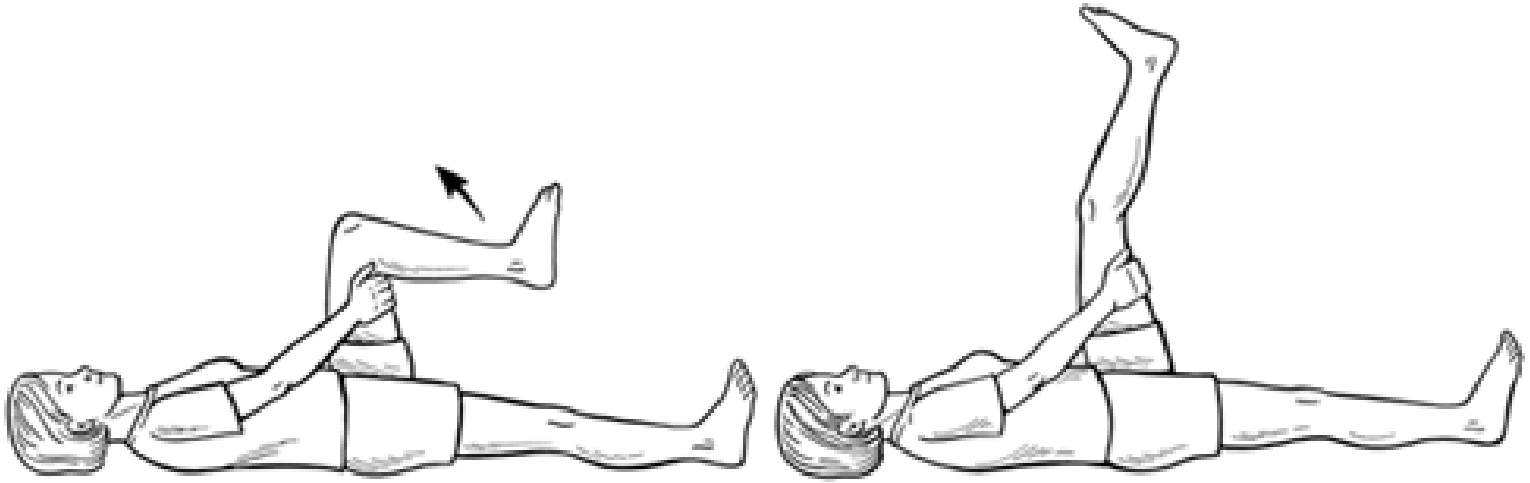


Flexão



Extensão

Alongamento isquio-tibiais

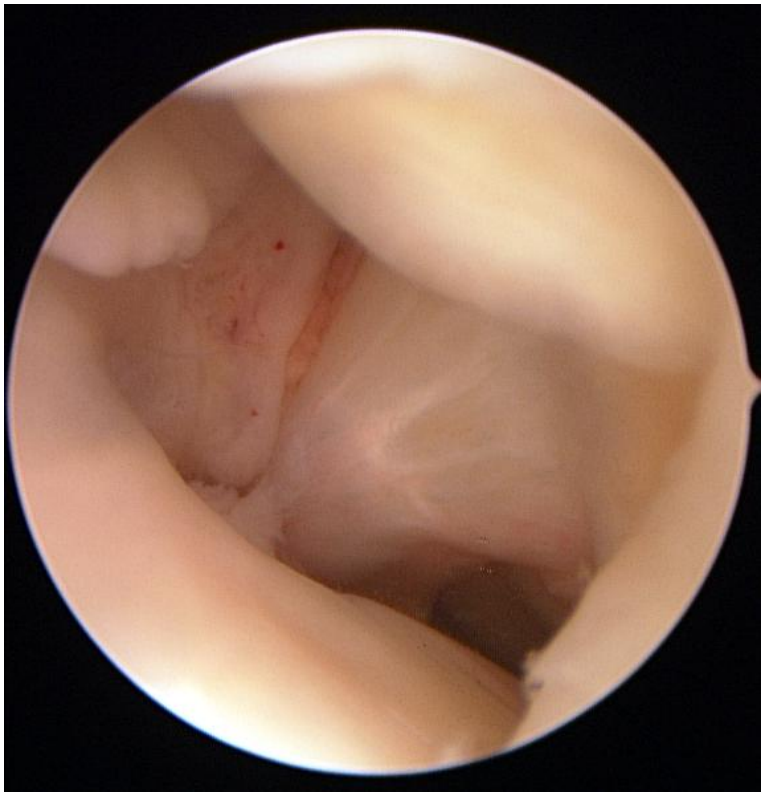


Fortalecimentos adutores

Banda ilio-tibial

Cirurgia

- Último recurso
  - Artroscopia
  - Actuação no aparelho extensor
    - Operação de Ficat
    - Operação Larson-Slocum
    - Actuação na TTA
      - Maquet III
      - Fulkerson
  - Actuação na cartilagem
    - Microfracturas
    - Mosaicoplastia
    - ACI



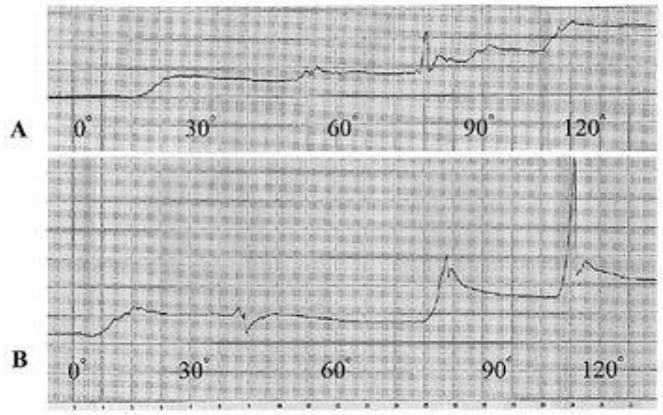
Secção asa externa

- Descrita em 1974 (Merchant e Mercer), e popularizada por Ficat
  - Indicação
    - Dor femoro-patelar com báscula rótula
    - Dor na asa externa da rótula
  - Contra-indicação
    - Dor femoro-patelar sem báscula rótula
    - Rótula hipermóvel
    - Desalinhaento FP com subluxação ou luxação

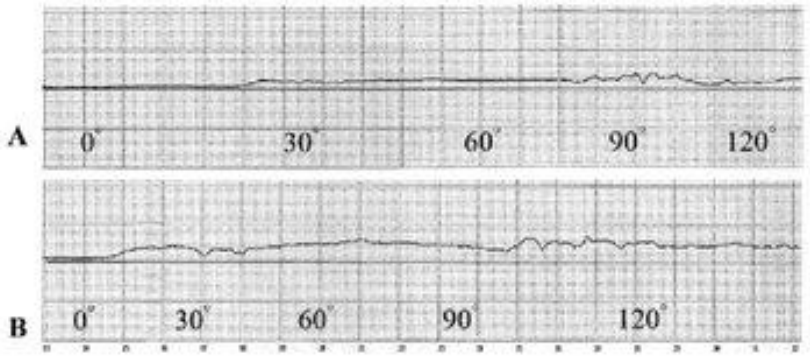
Secção asa externa

- Quatro padrões de funcionalidade da asa externa
  - Tipo I (82,5%) – A pressão aumenta com a flexão
  - Tipo II – Não há alteração da pressão no arco de movimento
  - Tipo III – Não há alteração da pressão no arco de movimento salvo no momento da recentragem rotuliana
  - Tipo IV – Há aumento da pressão no início do arco de movimento, até ao momento da sub-luxação ou luxação, altura em que diminui

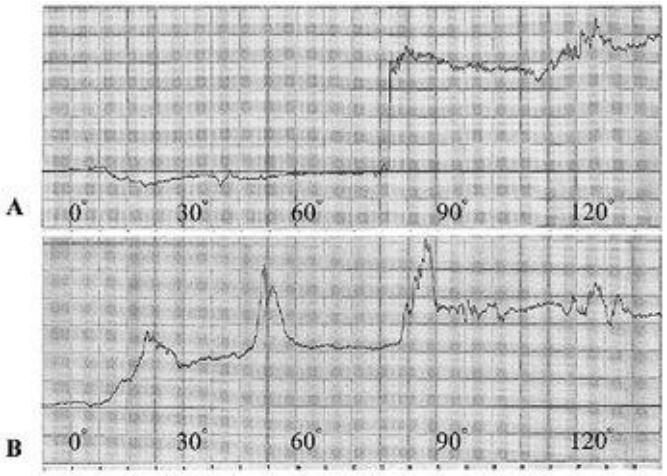
Ishibashi Y, et al.
Lateral patellar retinaculum tension in patellar instability
CORR, 2002, 397, 362-369



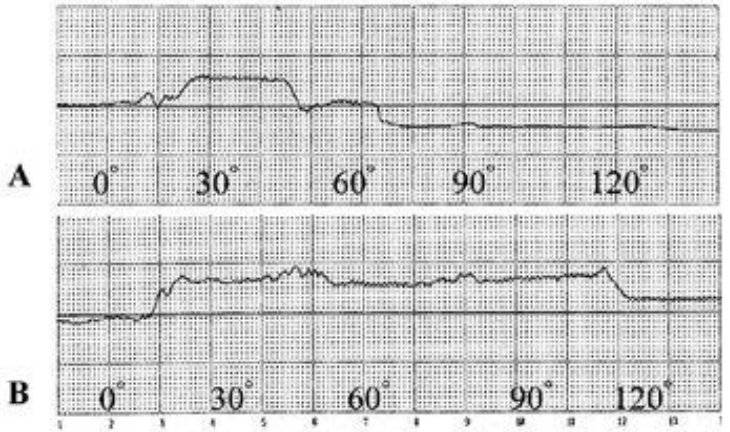
Tipo I



Tipo II



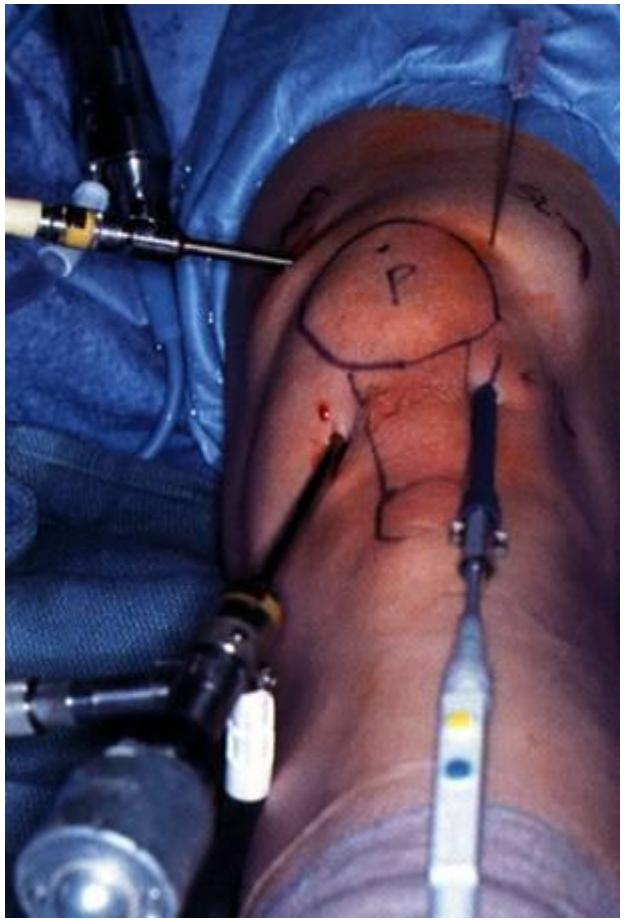
Tipo III



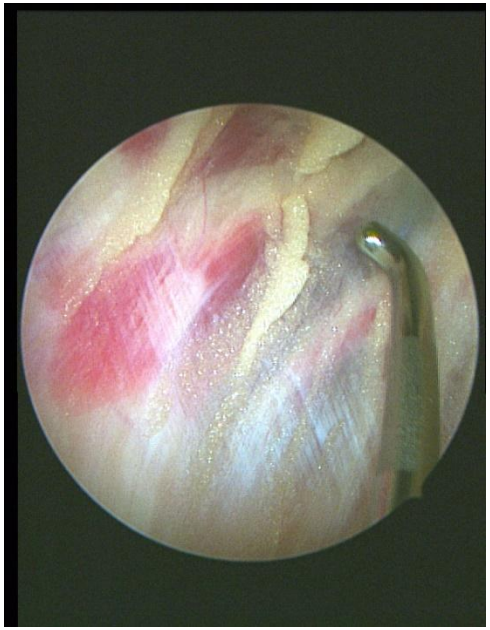
Tipo IV

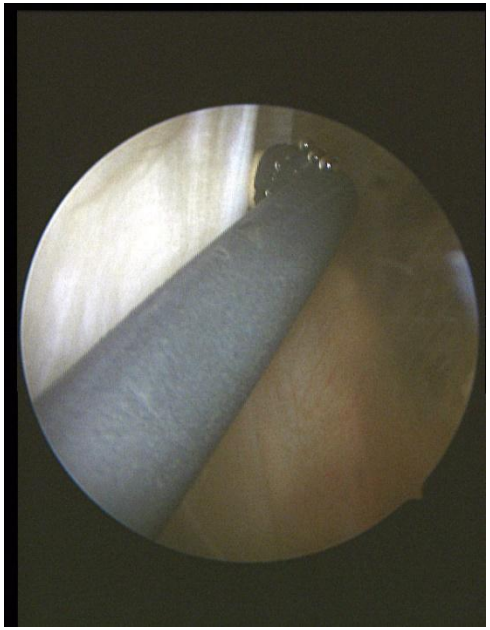
Ishibashi Y, et al.
Lateral patellar retinaculum tension in patellar instability
CORR, 2002, 397, 362-369

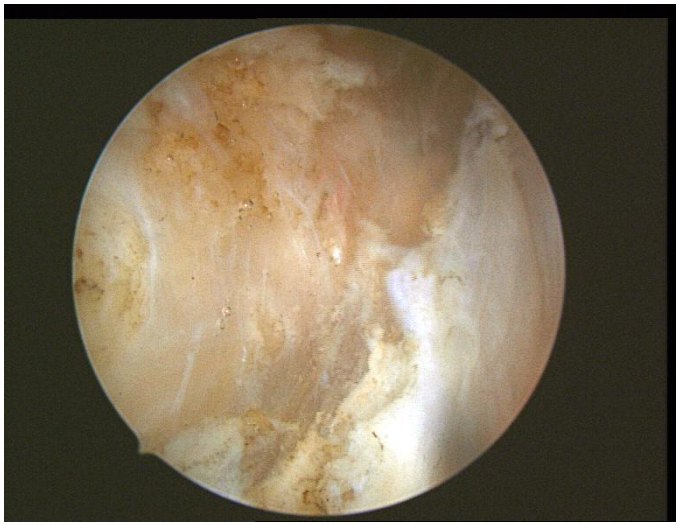
Secção asa externa rótula



Secção da asa externa da rótula







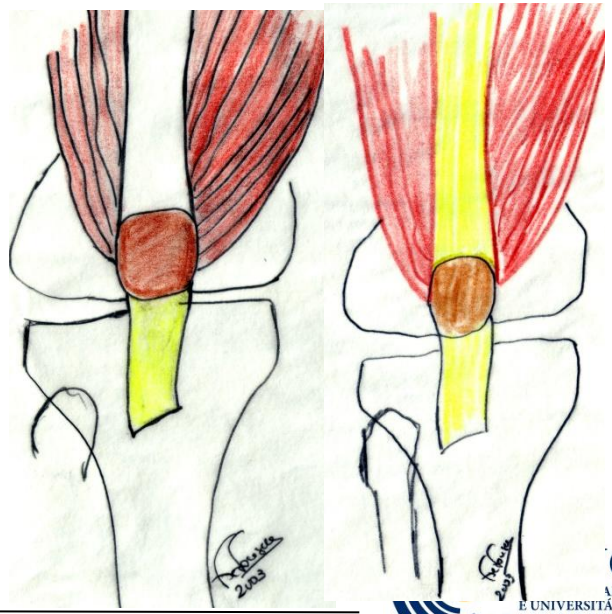
Secção asa externa

- Gesto obrigatório em toda a cirurgia rotuliana por instabilidade, mas... não tem grande eficácia no alinhamento do aparelho extensor

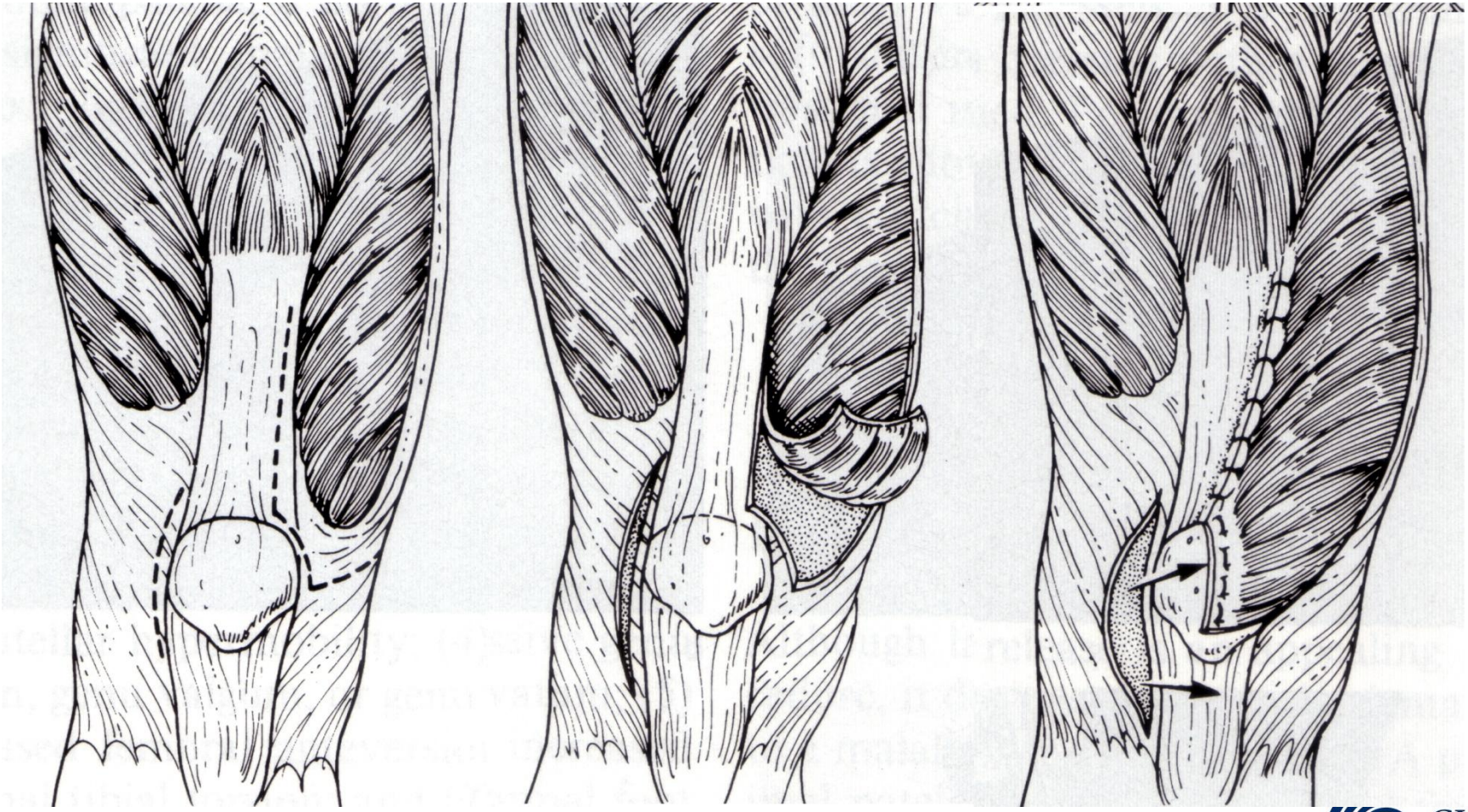
Realinhamento proximal

- Indicações
  - Vários episódios de luxação
  - Luxação aguda no indivíduo jovem

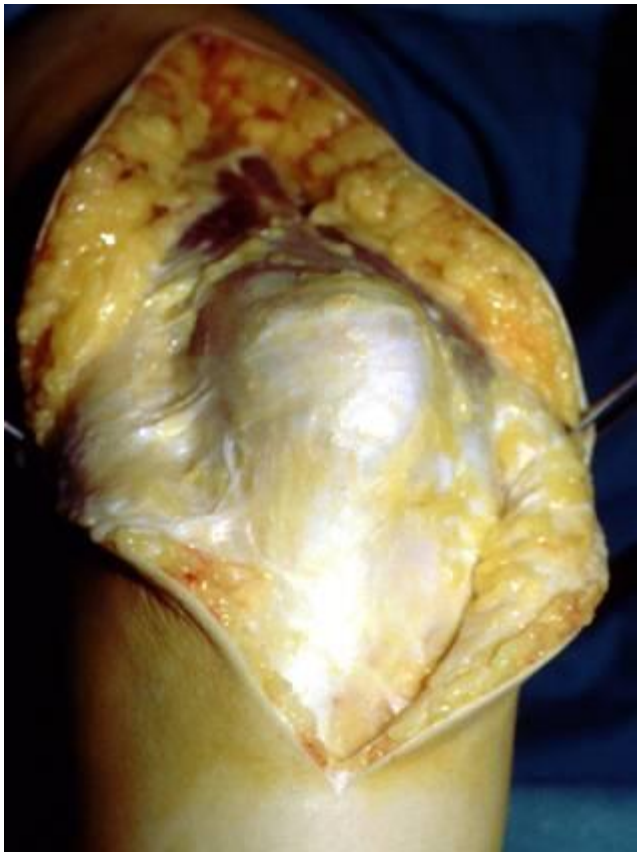
  - Plastia vasto interno (VI)
    - Transferência distal e lateral (Madigan - 1975)
    - Plicatura tubular Insall
    - Krogius,

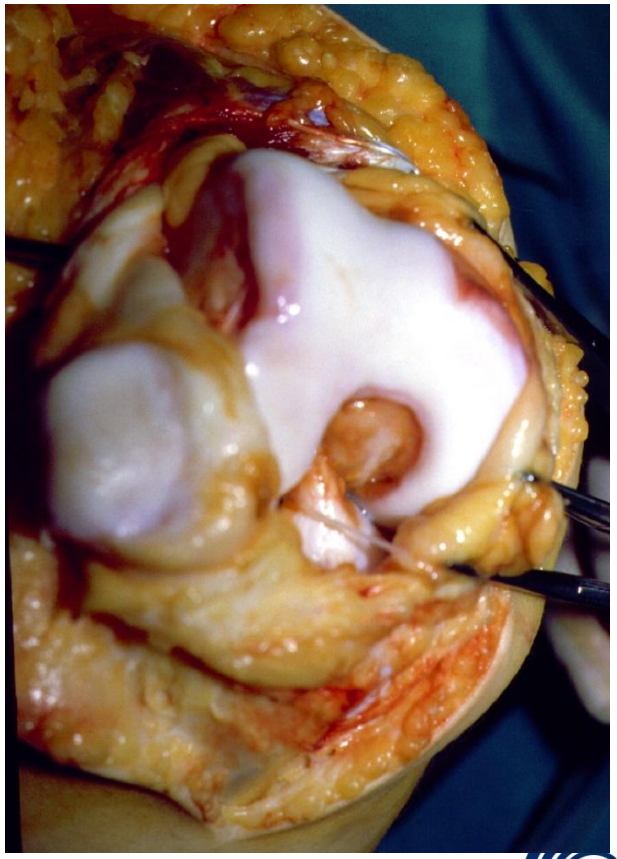


Operação Madigan



Plicatura Insall





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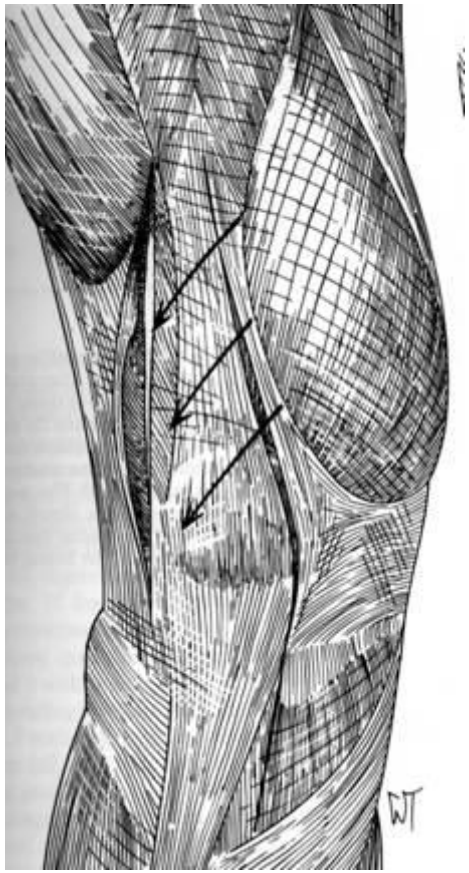

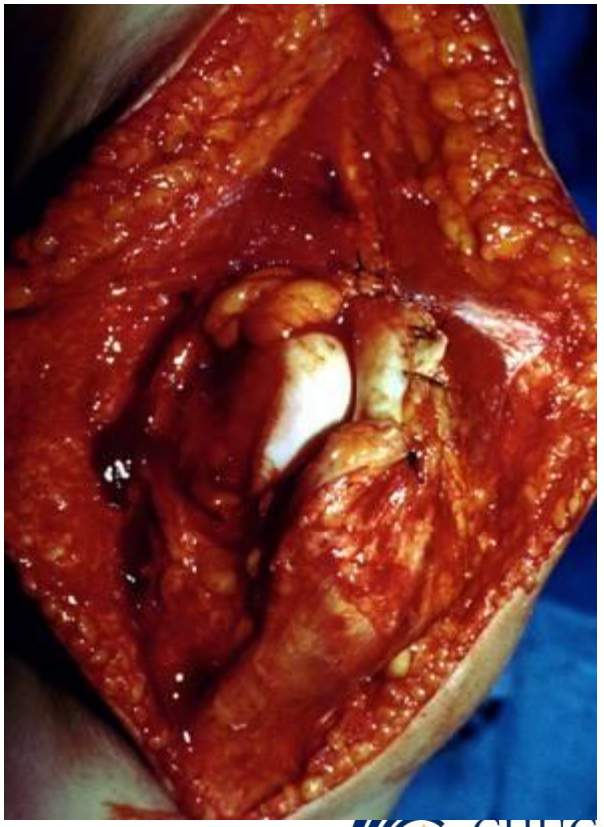

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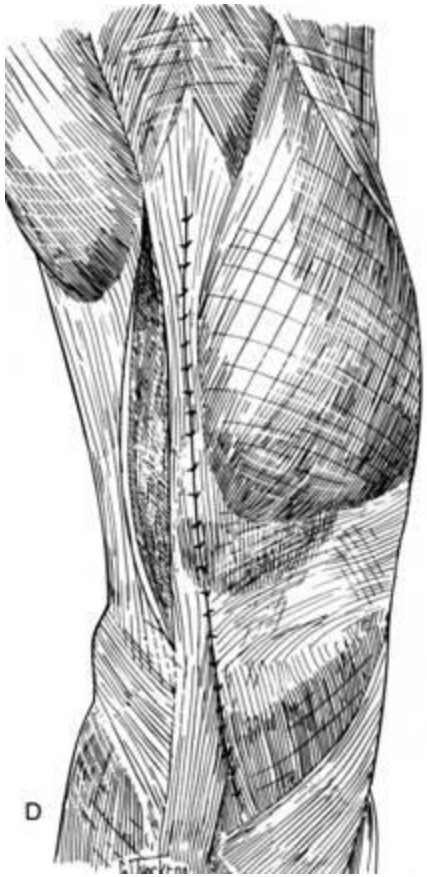
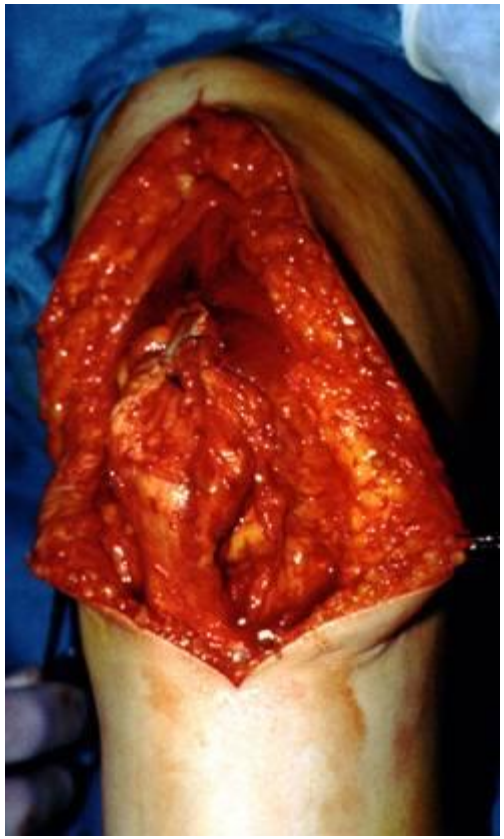
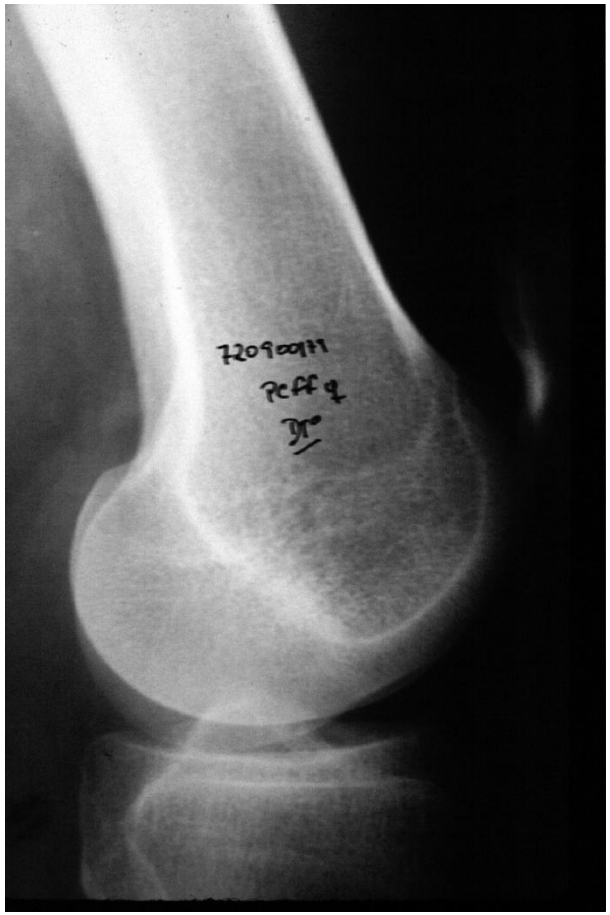


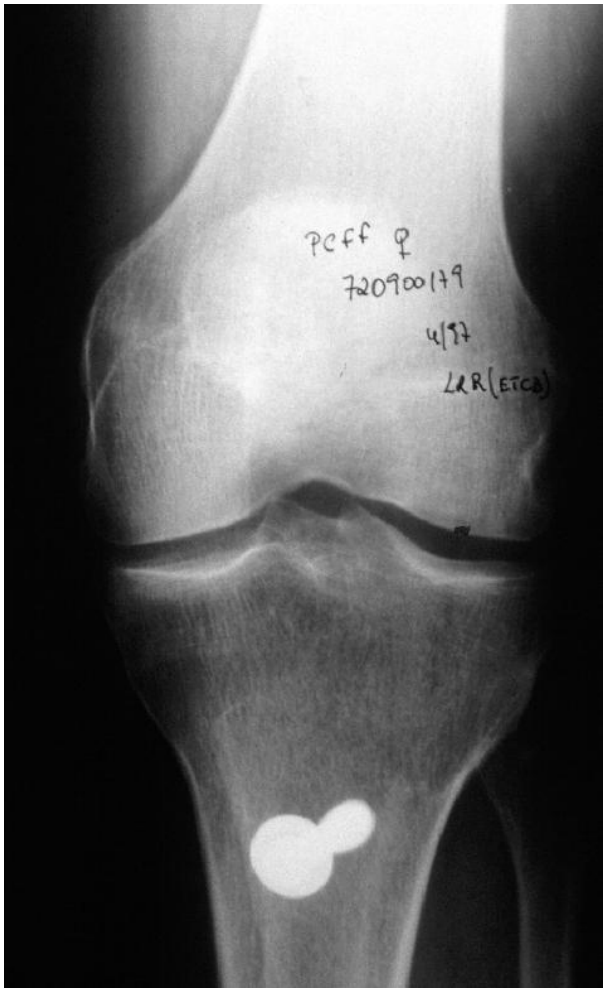


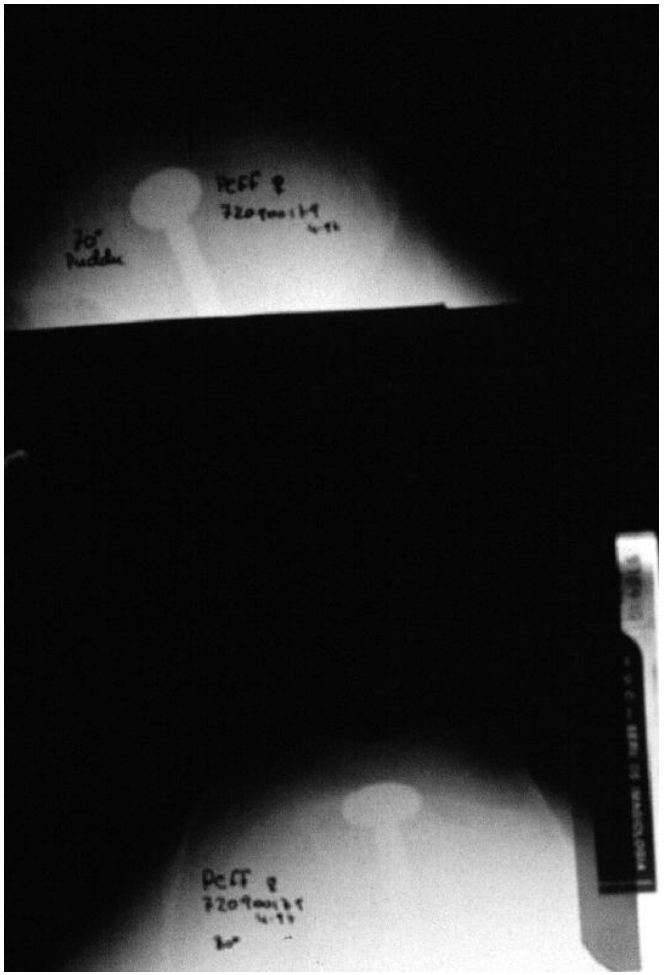
- Realinhamento Distal
  - Tecidos moles
    - Galiazzi
    - Roux-Goldthwait
  - Tecido ósseo
    - Hauser
    - Elmslie-Trillat; Fulkerson
    - Transposição distal da T.A.T. (se efeito pára-brisa associar tenodese T.R.)
  - Associação
    - Févre-Dupuis

Elmslie-Trillat

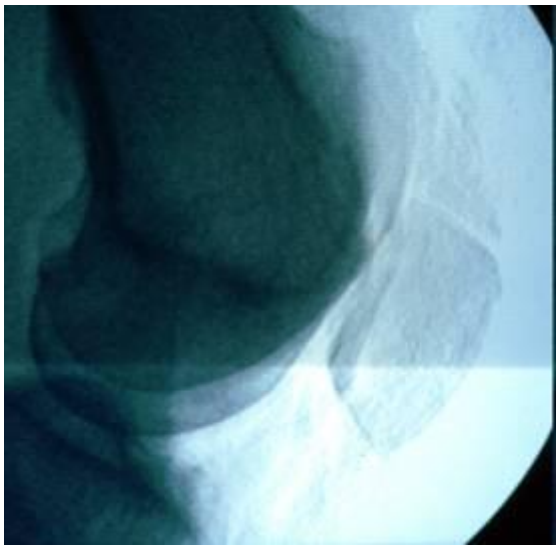


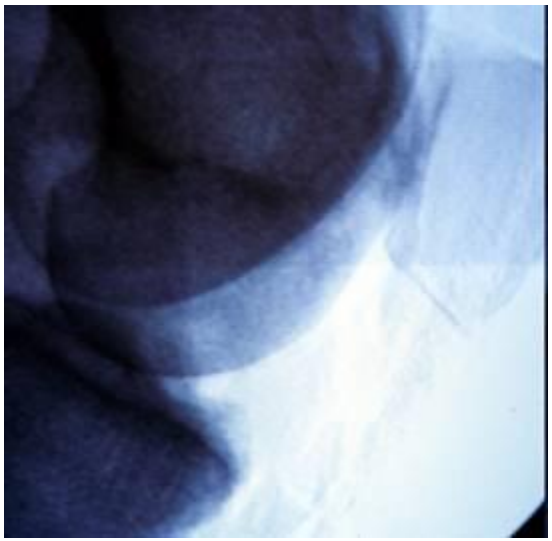
Elmslie-Trillat



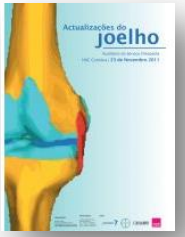


Translação proximal T.A.T.





OUTRAS OPÇÕES CIRÚRGICAS



- Art. Patelo-Femoral: "*The forgotten compartment of the knee...*", Ficat e Hungerford, 1977

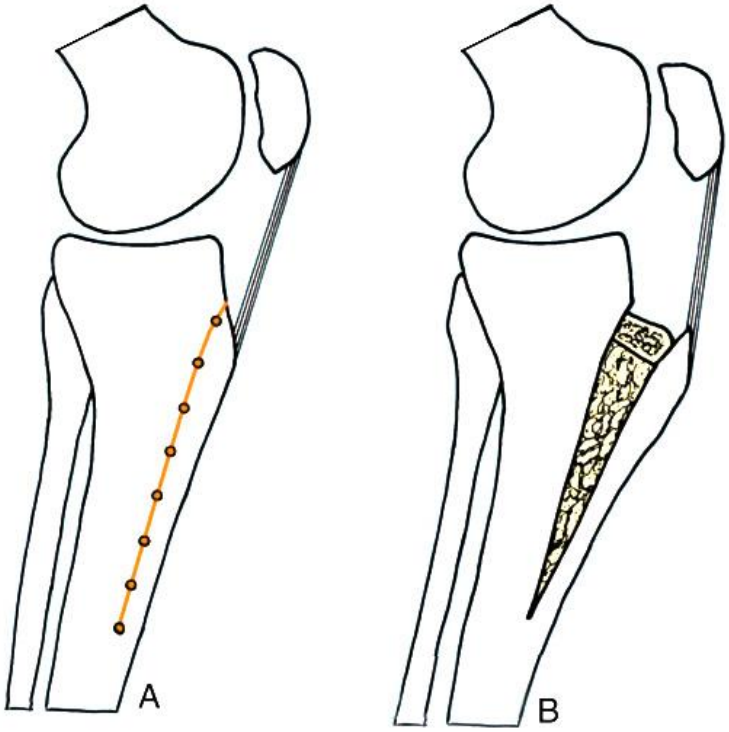
Deformity	Procedure
	Frontal Plane
Genu valgum	Femoral osteotomy (supracondylar)
Genu varum	Tibial osteotomy (infratuberosity)
	Sagittal Plane
Prominent trochlea	Trochleoplasty
Shallow trochlea	Lateral condyle osteotomy
Patella alta	Distal tuberde transfer
Increased AG-TG(>20 mm)	Tibi[illegible]e medialization
Decreased TT-TG	[illegible] tibia tuberde transfer
	Combined Deformities
Valgus + femoral anteversion	Distal femoral varus external rotation osteotomy
Varus + femoral anteversion	Distal femoral valgus external rotation osteotomy
Tibial torsion + increased TT-TG	Proximal tibial osteotomy (supratuberosity)
Femoral anteversion + tibial torsion ("miserable malalignment")	Proximal femoral external rotation osteotomy + proximal tibial internal rotation osteotomy

"*Menu à la carte*" H. Dejour, 1987

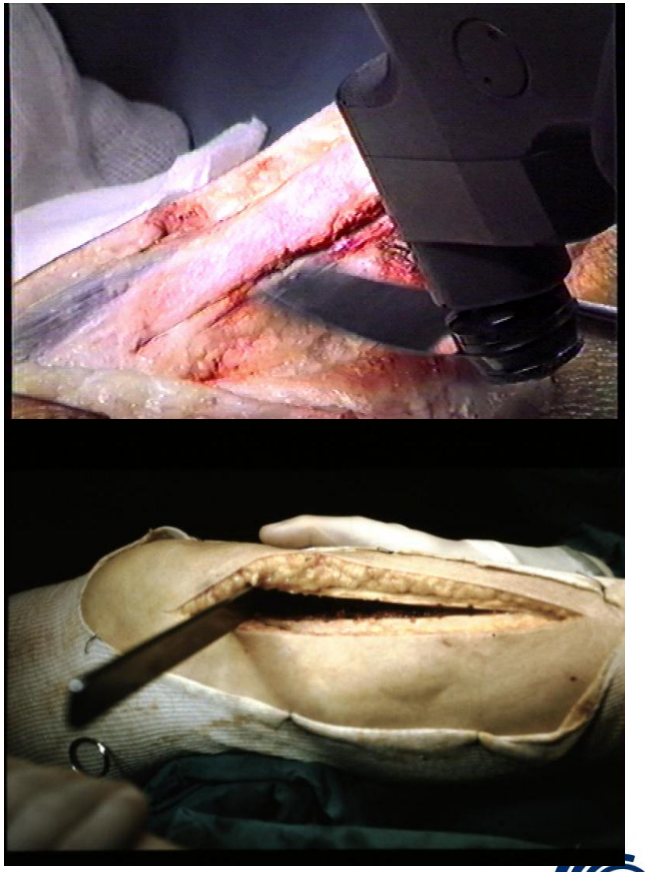
Robert A. Teitge and Roger Torga-Spak

Operação de Maquet-III

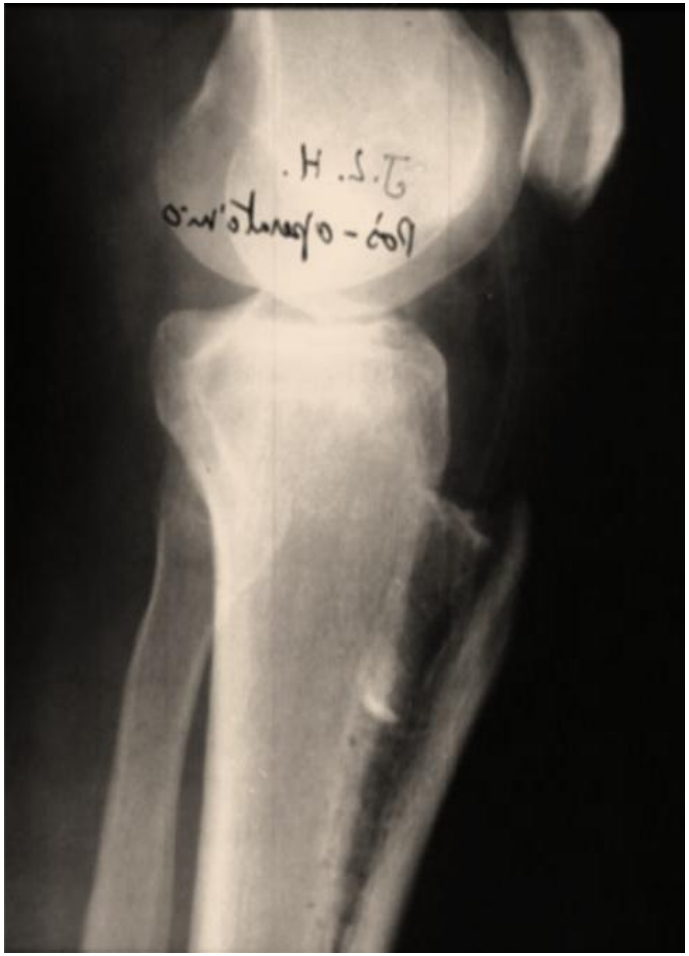
Técnica Cirúrgica

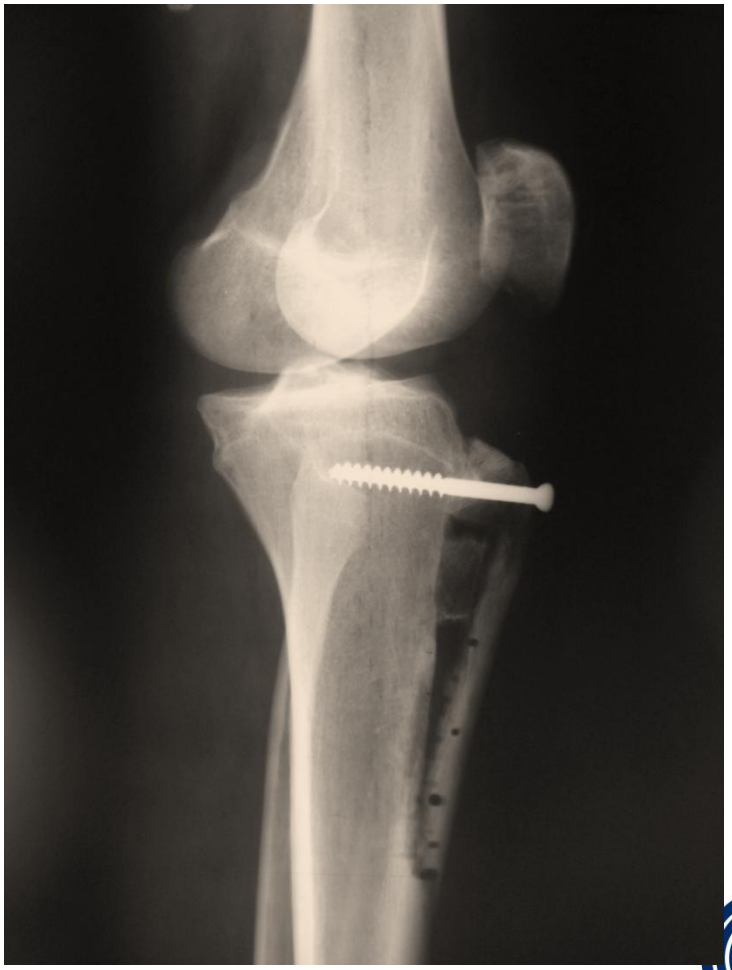


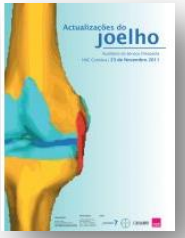
Adaptado de Canale & Beaty (2007) Campbell's Operative Orthopaedics



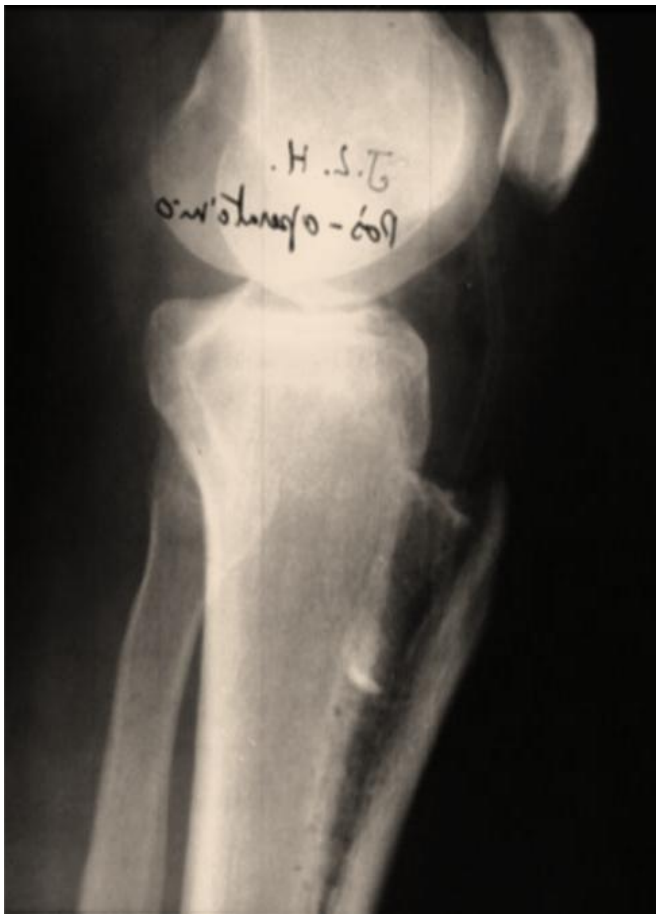
Operação de Maquet: Rx Pós-Operatório



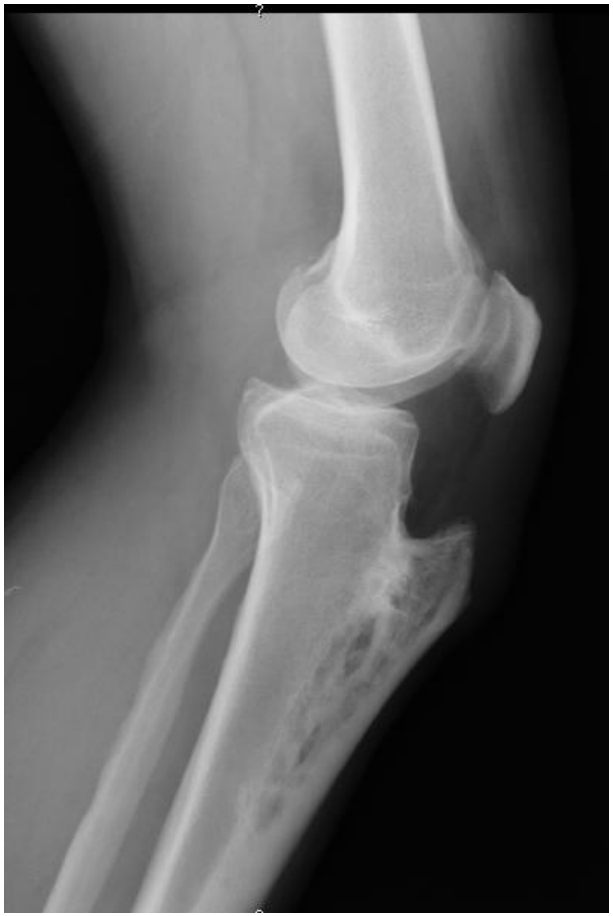




OSTEOTOMIA COM EFEITO MAQUET

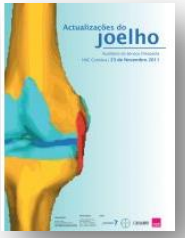


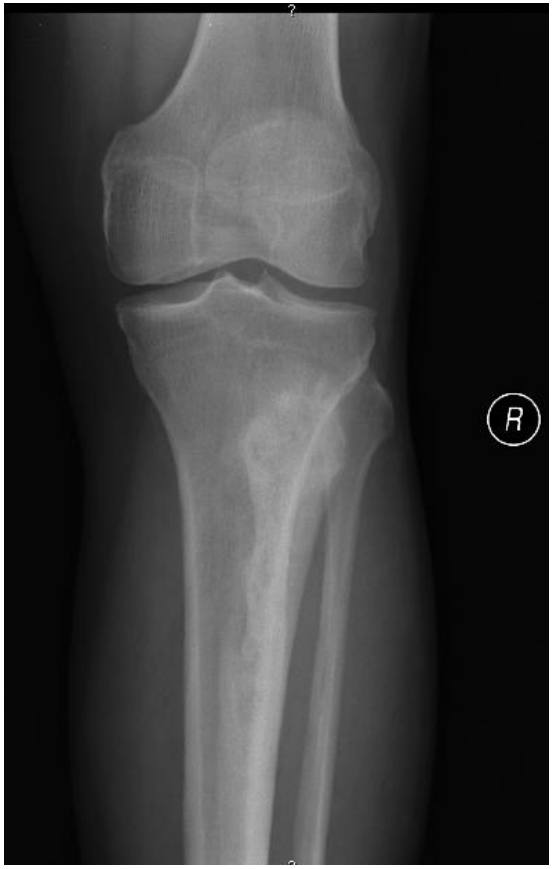
Pós-Operatório

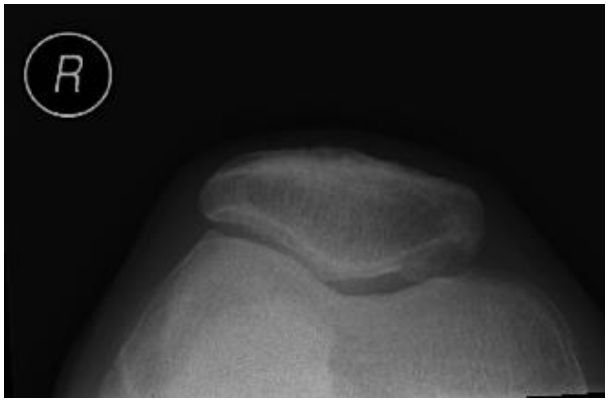


Follow-Up 30 anos

OSTEOTOMIA COM EFEITO MAQUET







***Follow-Up* 30 anos**

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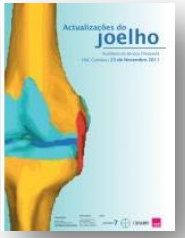
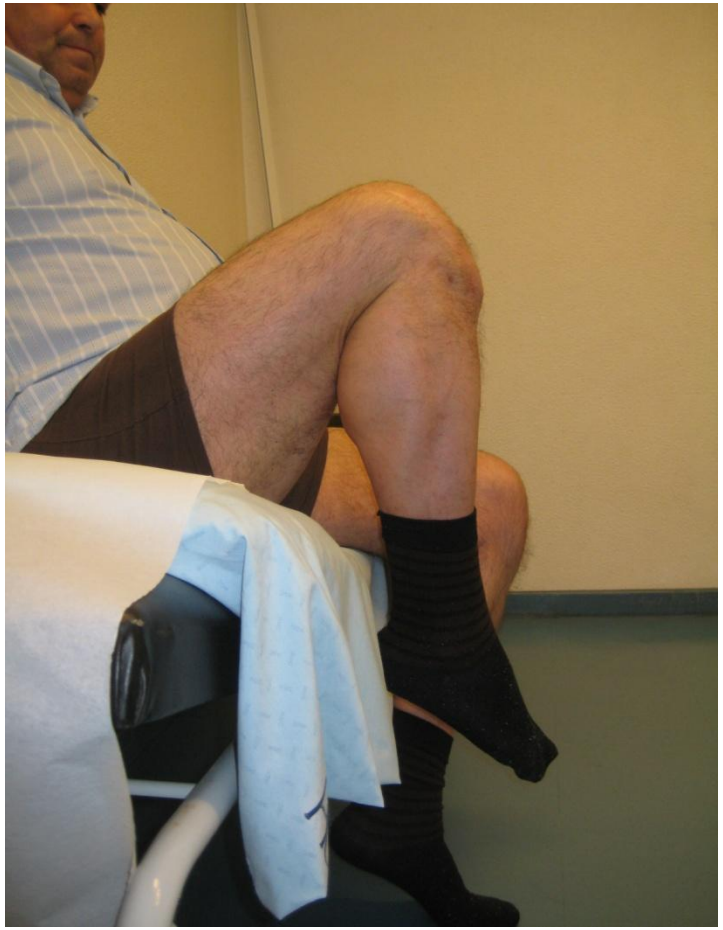
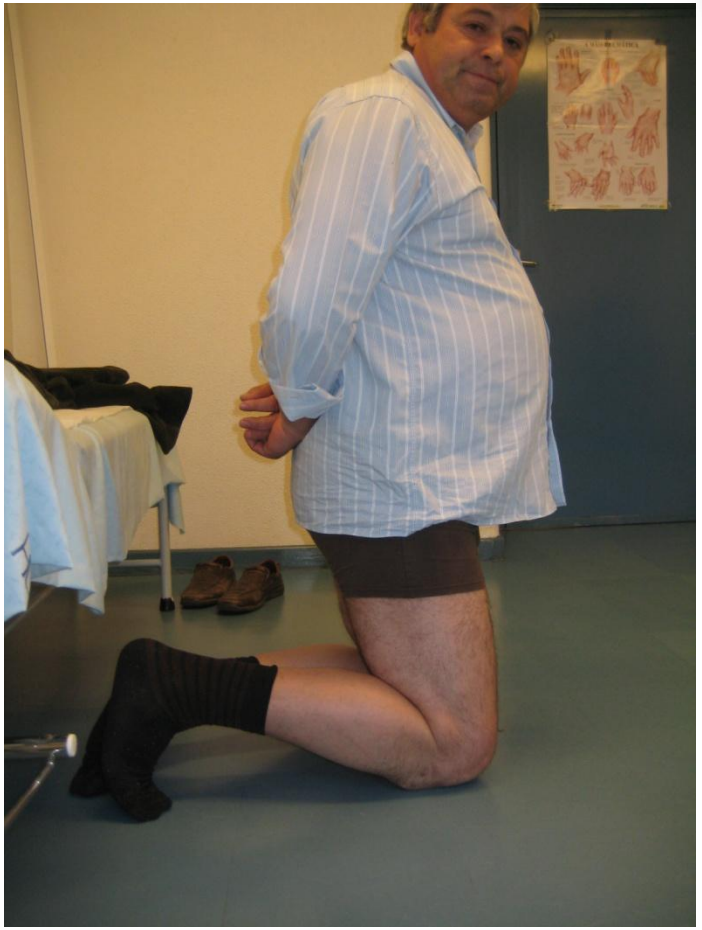
OSTEOTOMIA COM EFEITO MAQUET







***Follow-Up* 30 anos**

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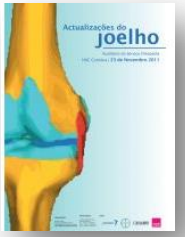
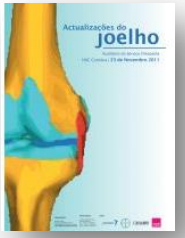


Study	Year	No. Cases	Elevation (cm)	Overall Complication Rate (%)	Wound Complications	
					Minor	Major
Maquet	1976	41	2–2.5	5 (12%)	4	1
Hirsh et al	1979	9	2–2.5	3 (33%)	1	0
Rozbruch et al	1979	30	1.75	8 (27%)	3	1
Lund et al	1980	68	1	22 (32%)	2	8
Sudmann et al	1980	33	1.5	5 (18%)	0	0
Heller et al	1982	20	2–2.5	14 (70%)	2	0
		14	2–2.5 (modified)	0	0	0
Ferguson	1982	184	1.25	3 (2%)	0	0
Heatley et al	1984	29	1.5	4 (13%)	0	0
Hofmann et al	1984	14	1.5 + tibial osteotomy	4 (28%)	0	1
Putnam et al	1985	34	1.25 + tibial osteotomy	6 (18%)	2	0
Mendes et al	1986	27	2.5	16 (59%)	8	2
Radin	1986	36	2–2.5	9 (25%)	4	0
Radin	1986	12	Group I (2–2.5)	5 (42%)	3	0
		32	Group II (2–2.5) (+modified)	5 (16%)	1	0
		9	Group III (1.25)	2 (22%)	0	0
Siegel	1987	20	1.9	8 (40%)	0	4
Bessette et al	1988	21	1.5	8 (40%)	2	0
Engebretsen et al	1989	46	1.5–2	8 (17%)	0	0

Rappoport, L.H. Et al. (1992). The Maquet Osteotomy. Orhopaedic Clinics of North America, Vol 23, Nº4, p.651

OSTEOTOMIA COM EFEITO MAQUET



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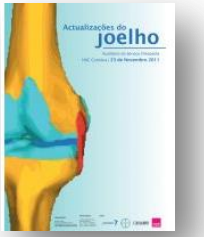
OSTEOTOMIA COM EFEITO MAQUET



Study	Year	No. Cases	Average Age (years)	Follow-up (mo)	Follow-up (no. of patients)	Surgical Indications				Clinical Rating	
						DJD/CM	P/F + MED	INST	PAT	Good–Excellent (%)	Fair–Poor (%)
Marquet	1976	41	56	56.4	39	39	2	0	0	37 (95)	2 (5)
Hirsh et al	1979	9	26	29	8 patients/ 9 knees	8	0	1	0	8 (89)	1 (11)
Rozbruch et al	1979	30	34		30	15	8	6	1	18 (60)	12 (40)
Lund et al	1980	68	35	13	62 patients/ 68 knees	68	0	0	0	63 (93)	5 (7)
Sudmann et al	1980	33	30	22	29 patients/ 33 knees	33	0	0	0	30 (91)	3 (9)
Ferguson	1982	63	26	24–48	63	63 CM	0	0	0	53 (84)	10 (16)
		48	57	24–48	48	48 DJD	0	0	0	44 (92)	4 (8)
		40	21	24–48	40	0	0	40	0	33 (82)	7 (18)
		25	30	24–48	25	25 Trauma	0	0	0	21 (84)	4 (16)
		8	42	24–48	8	0	0	0	8	7 (88)	1 (12)
Heatley et al	1984	29	18–71	36	28 patients/ 29 knees	21	0	7	1	19 (66)	10 (34)
				86.4	27 patients/ 28 knees	—	—	—	—	15 (54)	13 (46)
Hofmann et al	1984	14	56	27	14	0	14	0	0	1 (7)	13 (93)
Putnam et al	1985	34	60	16	31 patients/ 34 knees	0	34	0	0	23 (68)	11 (32)
Mendes et al	1986	27	55	66	25	13	11	0	3	20 (80)	5 (20)
Radin	1986	36	28	42	14	14 Trauma	0	0	0	13 (93)	1 (7)
					16	0	0	16	0	13 (81)	3 (19)
					6	0	0	0	6	4 (67)	2 (33)
Radin	1986	12	29	min. 24	12	12	0	0	0	11 (92)	1 (8)
		32		min. 24	32	32	0	0	0	30 (94)	2 (6)
		9		min. 24	9	9	0	0	0	6 (67)	3 (33)
Bessette et al	1988	21	34	29	17 patients/ 18 knees	19	0	0	2	?	?
Engebretsen et al	1989	46	23–55	60	41	46	0	0	0	10 (30)	23 (70)

* DJD/CM = patellofemoral osteoarthritis/chondromalacia patellae; P/F + MED = patellofemoral and medial compartment osteoarthritis; INST = recurrent instability; PAT = post patellectomy.

Rappoport, L.H. Et al. (1992). The Maquet Osteotomy. Orhopaedic Clinics of North America, Vol 23, Nº4, p.651

OSTEOTOMIA COM EFEITO MAQUET

- **Resultados da** Técnica Cirúrgica (Experiência HUC, **n=25**)
  - **Idade média actual 65,2 anos (*follow-up* médio de 27,2 anos);**
  - **58% de excelentes e bons resultados funcionais;**
  - **Tempo médio de ausência de dor 20,5 anos, com 40% dos doentes sem queixas álgicas até à actualidade;**
  - **69% dos doentes apresentam uma Gonartrose GI-II;**
  - **ABP de 6,3º e um IC de 0,9º;**
  - **Em termos funcionais temos um KPFSS de 61,9 pontos.**

J Orthop Surg Res. 2013 May 1;8
Maquet III procedure: what remains after initial complications--long-term results.
Fonseca F[1], Oliveira JP, Marques P.

Avaliação da literatura

Matriz /ACI

Acta Orthop Belg. 2014 Jun;80(2):251-9.

Treatment of patellofemoral cartilage defects in the knee by autologous matrix-induced chondrogenesis (AMIC.

Dhollander A, Moens K, Van der Maas J, Verdonk P, Almqvist KF, Victor J.

Abstract

This study presents the prospective two-year clinical and MRI outcome of autologous matrix-induced chondrogenesis (AMIC) for the treatment of patellofemoral cartilage defects in the knee. Ten patients were clinically prospectively evaluated during 2 years. MRI data were analysed based on the original and modified MOCART (Magnetic Resonance Observation of Cartilage Repair Tissue) scoring system. A satisfying clinical improvement became apparent during the 24 months of follow-up. The MOCART scoring system revealed a slight tendency to deterioration on MRI between one and 2 years of follow-up. However, the difference was not statistical significant. All cases showed subchondral lamina changes. The formation of intralesional osteophytes was observed in 3 of the 10 patients (30%). In conclusion, AMIC is safe and feasible for the treatment of symptomatic patellofemoral cartilage defects and resulted in a clinical improvement. However, the favourable clinical outcome of the AMIC technique was not confirmed by the MRI findings.

PMID: 25090800 [PubMed - indexed for MEDLINE]

Microfracturas

World J Orthop. 2014 Sep 18;5(4):444-9. doi: 10.5312/wjo.v5.i4.444. eCollection 2014.

Enhanced microfracture techniques in cartilage knee surgery: Fact or fiction?

Bark S[1], Piontek T[1], Behrens P[1], Mkalaluh S[1], Varoga D[1], Gille J[1].

⊕ Author information

Abstract

The limited intrinsic healing potential of human articular cartilage is a well-known problem in orthopedic surgery. Thus a variety of surgical techniques have been developed to reduce joint pain, improve joint function and delay the onset of osteoarthritis. Microfractures as a bone marrow stimulation technique present the most common applied articular cartilage repair procedure today. Unfortunately the deficiencies of fibrocartilaginous repair tissue inevitably lead to breakdown under normal joint loading and clinical results deteriorate with time. To overcome the shortcomings of microfracture, an enhanced microfracture technique was developed with an additional collagen I/III membrane (Autologous, Matrix-Induced Chondrogenesis, AMIC(®)). This article reviews the pre-clinical rationale of microfractures and AMIC(®), presents clinical studies and shows the advantages and disadvantages of these widely used techniques. PubMed and the Cochrane database were searched to identify relevant studies. We used a comprehensive search strategy with no date or language restrictions to locate studies that examined the AMIC(®) technique and microfracture. Search keywords included cartilage, microfracture, AMIC(®), knee, Chondro-Gide(®). Besides this, we included our own experiences and study authors were contacted if more and non published data were needed. Both cartilage repair techniques represent an effective and safe method of treating full-thickness chondral defects of the knee in selected cases. While results after microfracture deteriorate with time, mid-term results after AMIC(®) seem to be enduring. Randomized studies with long-term follow-up are needed whether the grafted area will maintain functional improvement and structural integrity over time.

KEYWORDS: Autologous, Matrix-Induced Chondrogenesis; Cartilage; Chondro-Gide®; Knee; Microfracture

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Advanced patellofemoral cartilage lesions in patients younger than 50 years of age: is there an ideal operative option?

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Author information

Abstract

PURPOSE: The purpose of this review was to determine if there is an ideal operation for large symptomatic articular cartilage lesions on the undersurface of the patella in young patients.

METHODS: A systematic search of PubMed was conducted to determine the outcome of operations performed for large patellar lesions in young patients. Inclusionary criteria were English language, original clinical trials published from 1992 to 2012, patellar lesions 4 cm(2) or larger, mean patient age 50 years or younger, and all evidence levels.

RESULTS: Of 991 articles identified, 18 met the inclusionary criteria, encompassing 840 knees in 828 patients. These included 613 knees that underwent autologous chondrocyte implantation (ACI) (11 studies), 193 knees that had patellofemoral arthroplasty (PFA) (5 studies), and 34 knees that underwent osteochondral allografting (OA) (2 studies). The mean patient age was 37.2 years and the mean follow-up was 6.2 years. Long-term follow-up (>10 years) was available in only 4 studies (2 PFA, 1 ACI, 1 OA). All studies except one were Level IV and none were randomized or had a control group. Twenty-one outcome instruments were used to determine knee function. When taking into account knees that either failed or had fair/poor function, the percentage of patients who failed to achieve a benefit averaged 22% after PFA and 53% after OA and ranged from 8% to 60% after ACI. In addition, all 3 procedures had unacceptable complication and reoperation rates.

CONCLUSIONS: The combination of failure rates and fair/poor results indicated that all 3 procedures had unpredictable results. We concluded that a long-term beneficial effect might not occur in one of 3 ACI and PFA procedures and in 2 of 3 OA procedures. We were unable to determine an ideal surgical procedure to treat large symptomatic patellar lesions in patients 50 years or younger.

LEVEL OF EVIDENCE: Level IV, systematic review of Level I to IV studies.

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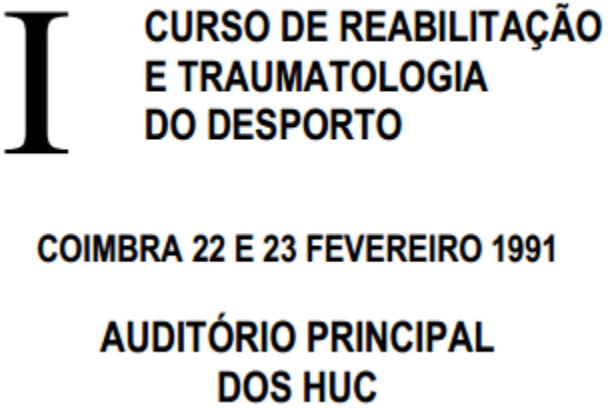
O que aprendi em 25 anos ?

O que aprendi nestes anos?

- 1991 – Procedimento “standard”
  - Tratamento conservador com
    - AINE
    - Fisioterapia
  - Tratamento cirúrgico
    - Larson Slocum (AAER)
    - Maquet (a cair em desuso)



Como procedo (2015) - 1

- Avaliação sistemática dos sintomas dos doentes
  - Ouvir o doente é fundamental!
- Exame físico cuidadoso
  - Despiste de causas secundárias
- Se existem causas secundárias
  - Tratar as causas secundárias

Como procedo(2015) -2

- Se não existem causas secundárias
  - Abordagem com tratamento médico (principal opção!)
  - Abordagem cirúrgica como última opção
    - Artroscopia – lavagem
    - Nunca fazer o Ficat, quando muito Larsen Slocum
    - Tratamento das lesões com < $2cm^2$ (Microfracturas)
    - Tratamento das kesões com > $2cm^2$(Mosaicolastia (Bertlet))

- ... O joelho é uma dos sistemas mais complexos do Universo!...
- ... As estruturas patelo-femorais sofrem cargas de compressão e tensão, que muitas vezes excedem a sua capacidade, conduzindo a uma falência na sua micro-estrutura

(Scott Dye, 1997)

Muito obrigado

XXV CURSO
DE REABILITAÇÃO
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"25 ANOS DE REABILITAÇÃO E TRAUMATOLOGIA DO DESPORTO"

COIMBRA, 31 DE JANEIRO DE 2015