

Versão Femoral



**III Jornada de Cirurgia Preservadora e
Artroscopia de Quadril
do Hospital Moinhos de Vento**

Versão Femoral

Richard Prazeres Canella

Luiz Fernando de Vincenzi

Gerson Gandhi Ganev

Daniel Codonho

Guilherme Pradi Adam

Hospital de Caridade

Grupo de Quadril

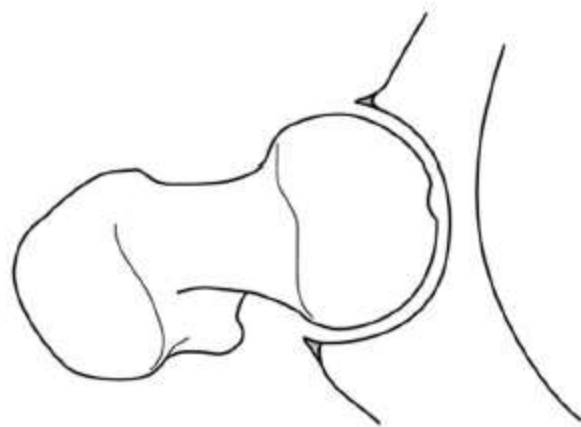
Florianópolis - SC



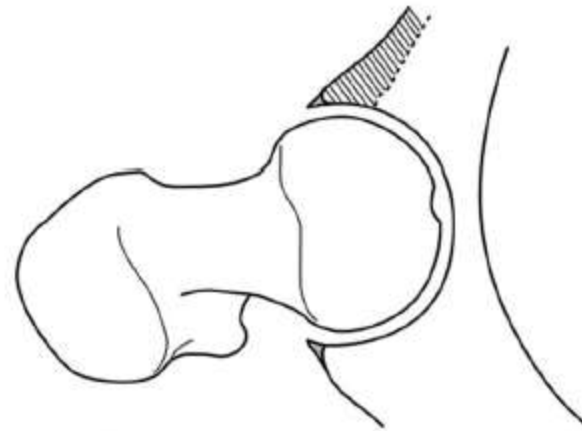
Hospital Baía Sul

Florianópolis - SC

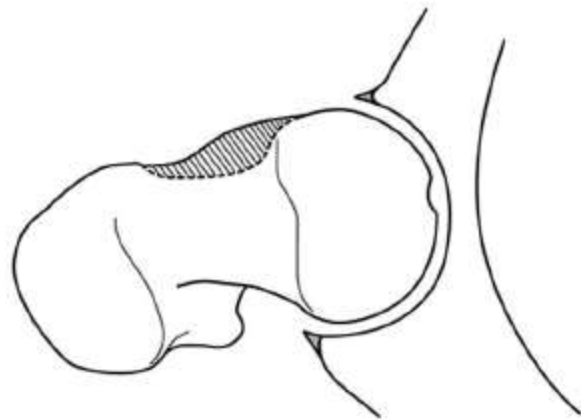




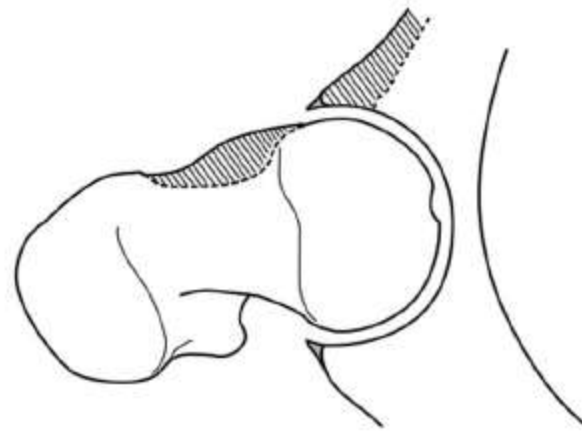
A



C

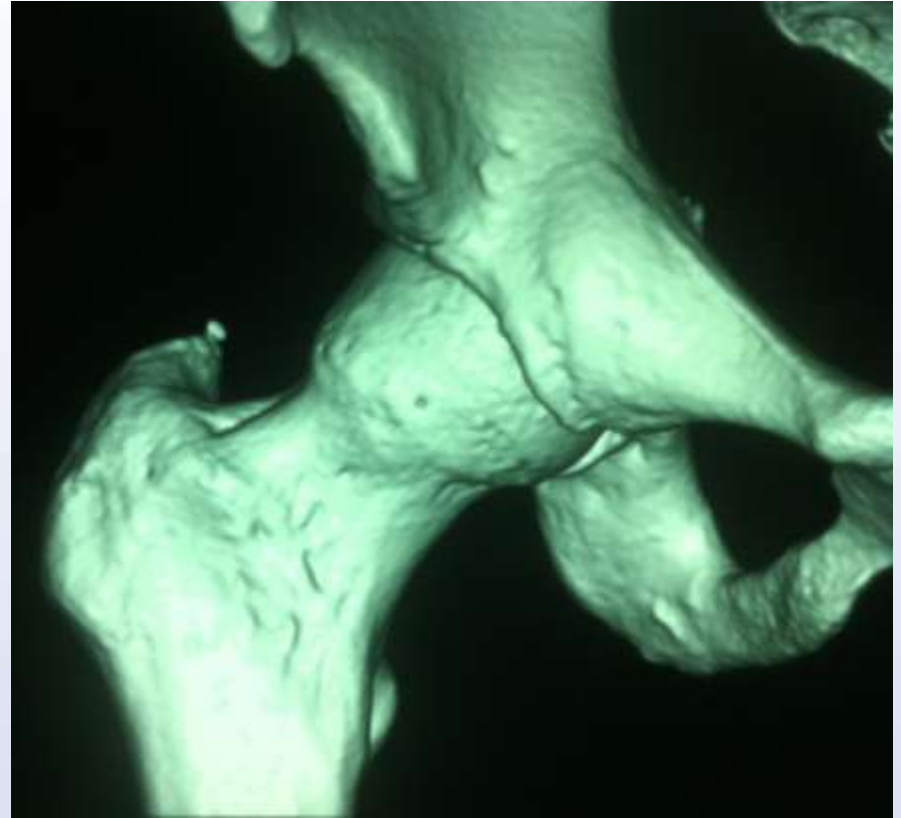
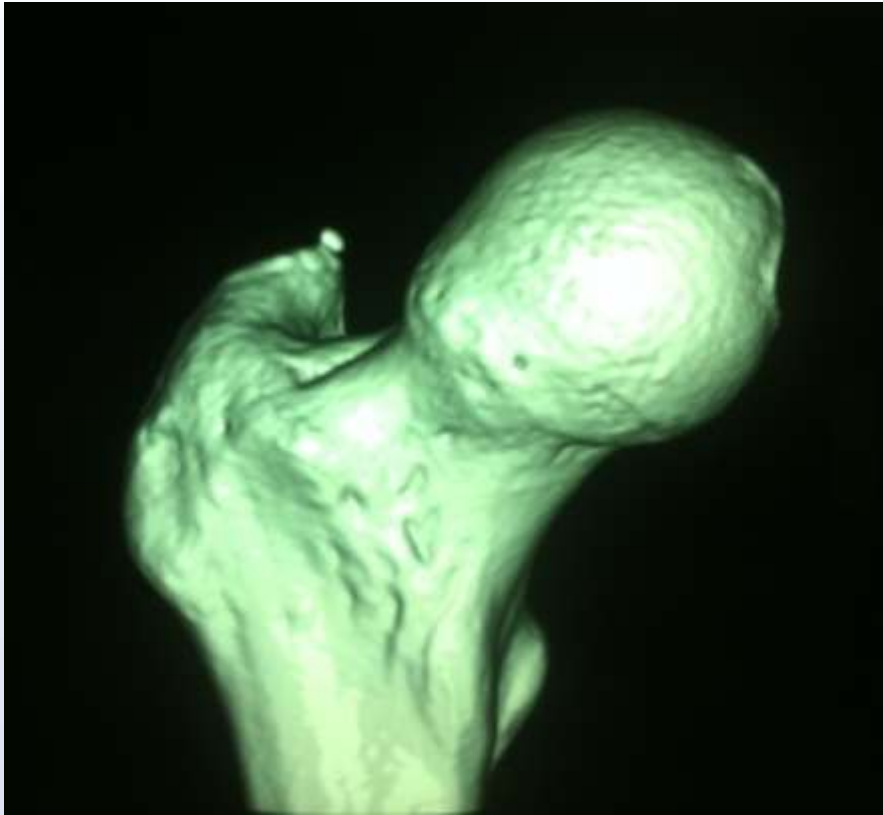


B



D

LGL, 39, masc, ortopedista, atleta amador



LGL, 39, masc, ortopedista, atleta amador



LGL, 39, masc, ortopedista, atleta amador



1000%

100%

ASSINTOMÁTICO!

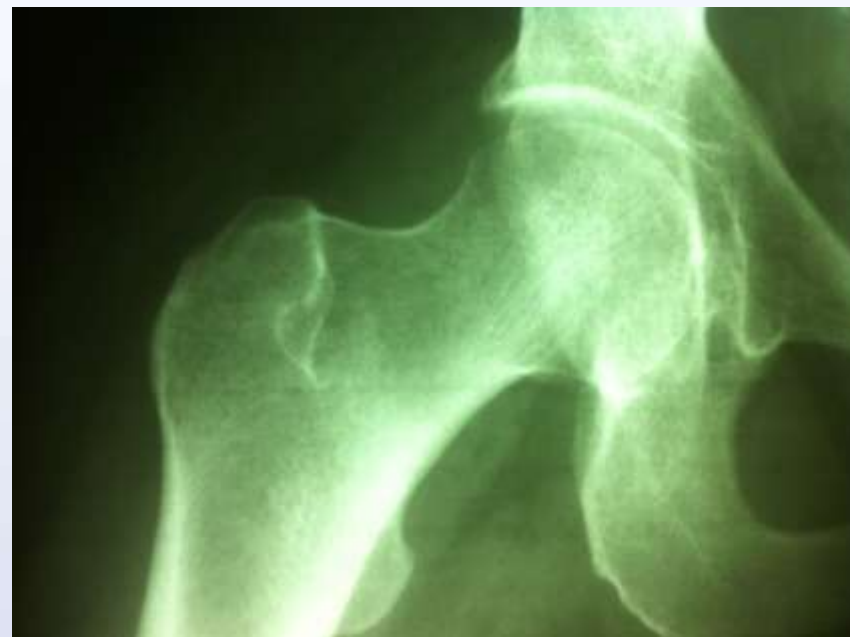
SAP, 42a, fem, atleta amadora



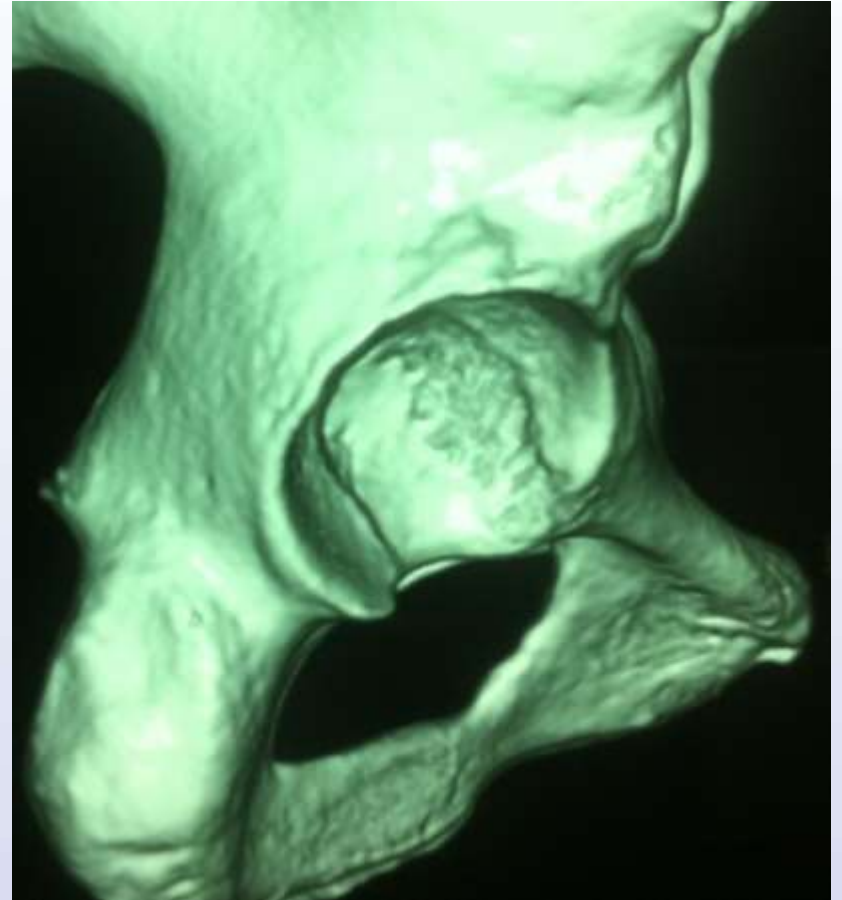
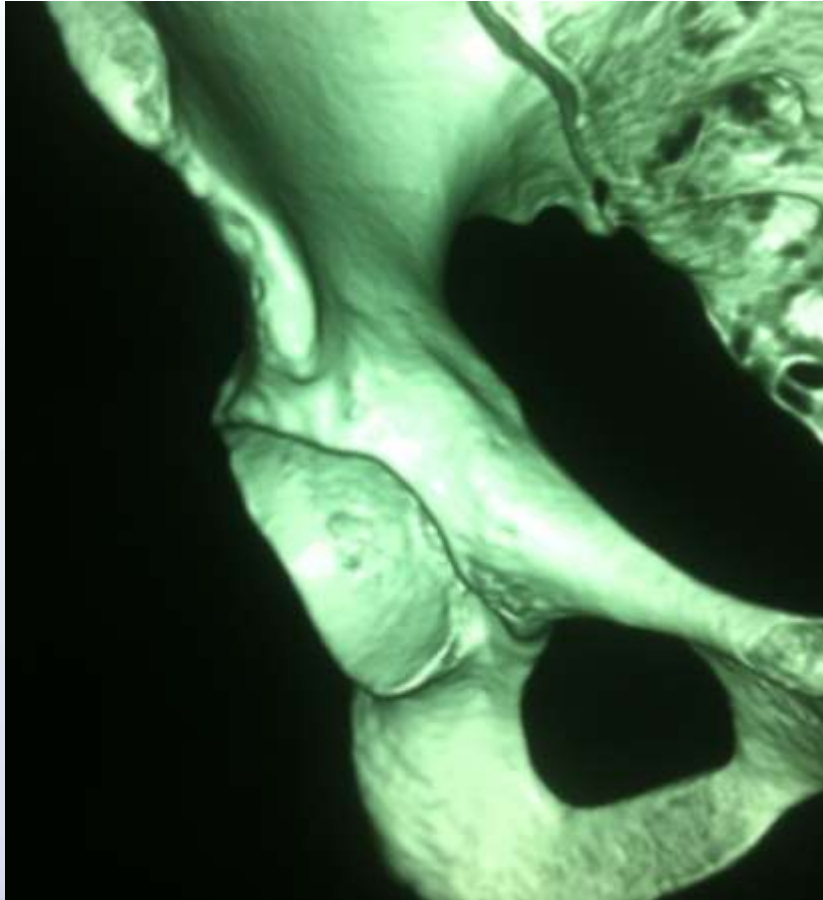
SAP, 42a, fem, atleta amadora



SAP, 42a, fem, atleta amadora



SAP, 42a, fem, atleta amadora

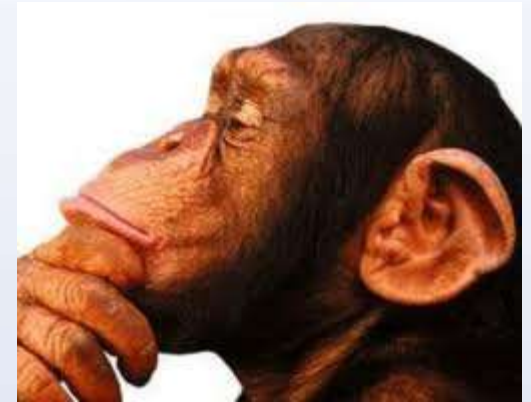
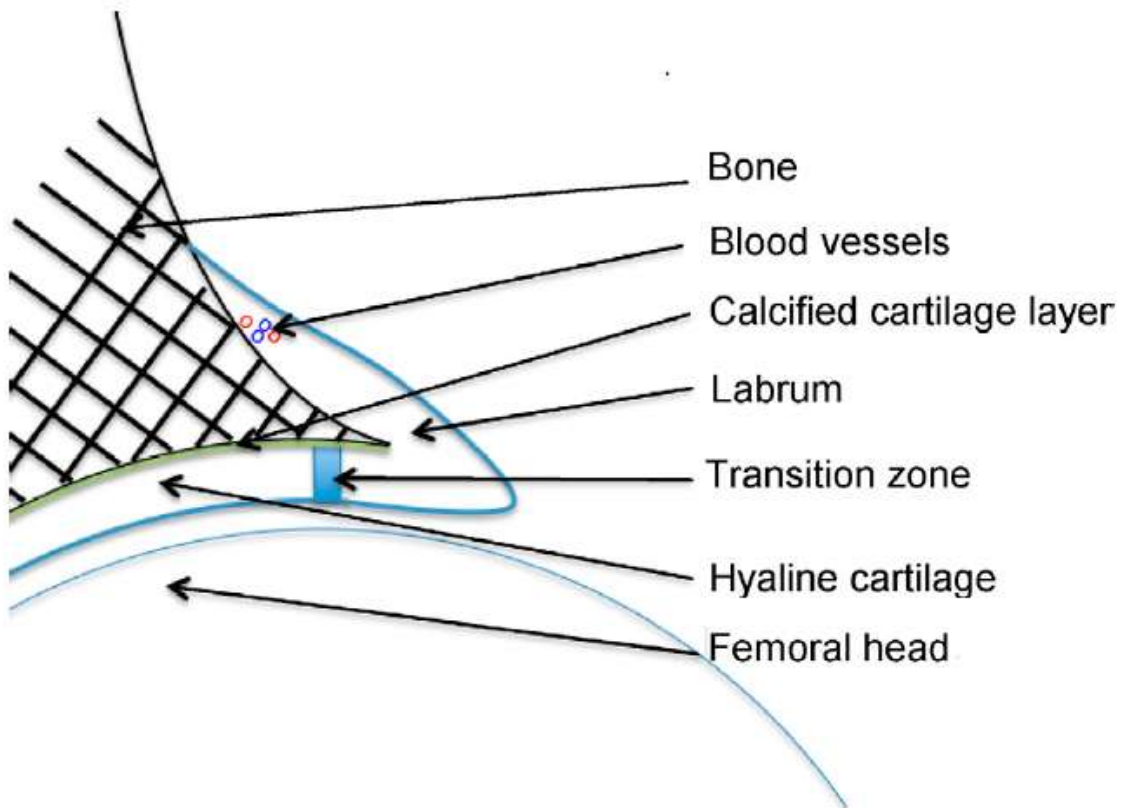


1000%

100%

PERMANÊNCIA DA
DOR!!!



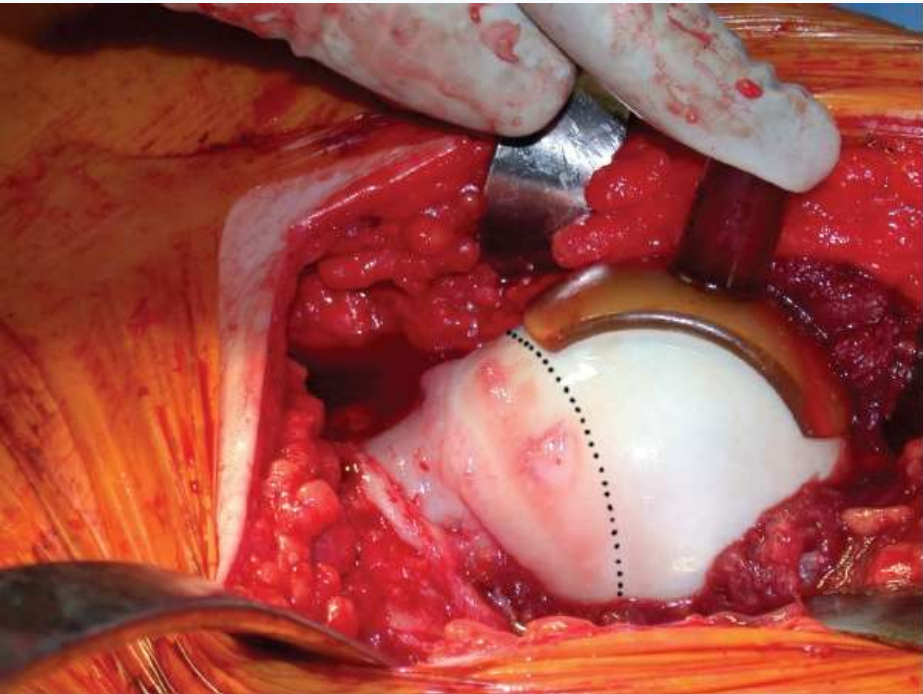


COPYRIGHT © 2007 BY THE JOURNAL OF BONE AND JOINT SURGERY, INCORPORATED

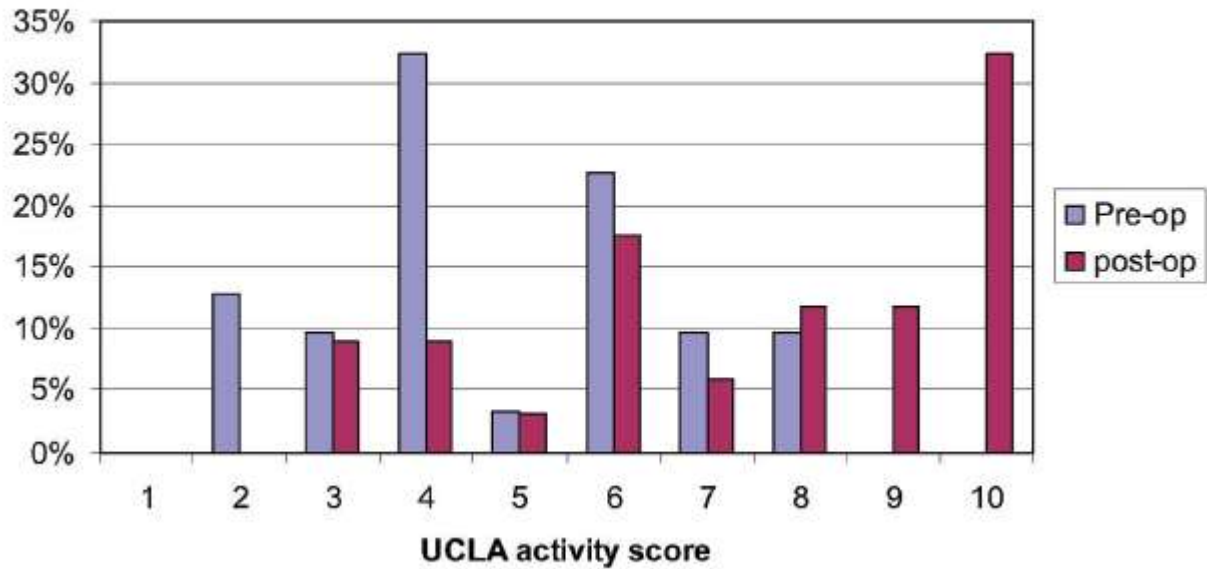
Quality of Life Following Femoral Head-Neck Osteochondroplasty for Femoroacetabular Impingement

By Paul E. Beaulé, MD, FRCSC, Michel J. Le Duff, MA, and Edward Zaragoza, MD

Investigation performed at the Department of Orthopaedic Surgery, UCLA/Orthopaedic Hospital, Los Angeles, California, and the University of Ottawa, Ottawa, Ontario, Canada



Distribution of activity levels



PERSPECTIVE

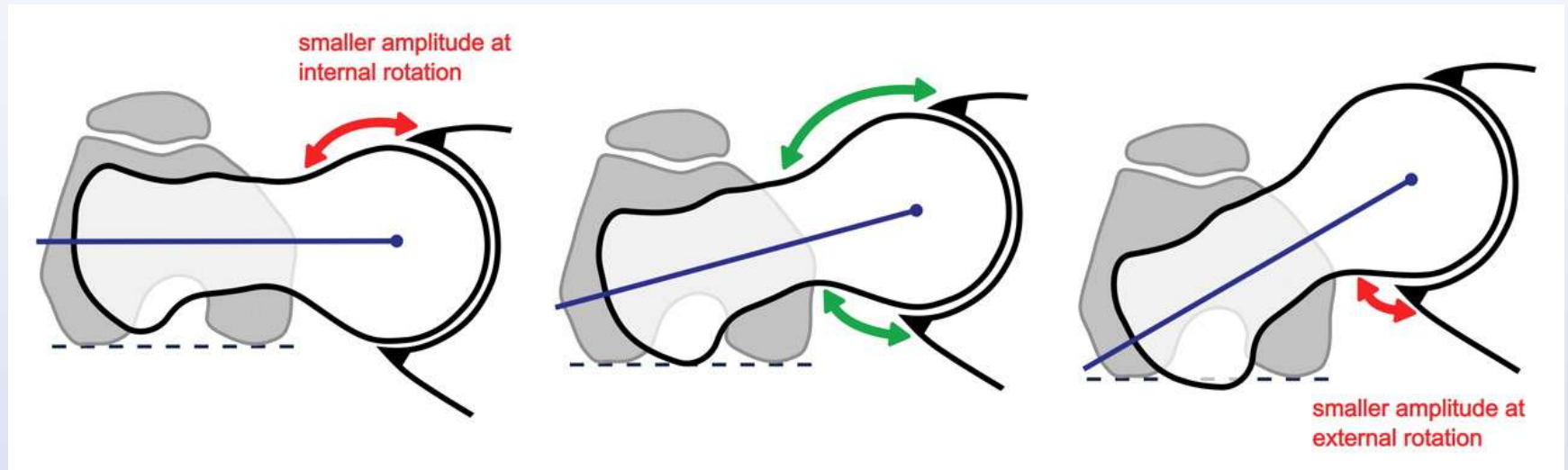
A perspective on femoroacetabular impingement

Thomas C. B. Pollard

15 March 2011

Whether it is necessary to address pincer and cam deformities in the same hip, or just address one side of the joint, has also not been investigated. These questions will remain unanswered until controlled studies are performed, and realistically a multicentre trial will be required.

Versão Femoral



FEMORAL RETROVERSION IN PATIENTS WITH FEMOROACETABULAR IMPINGEMENT: A COFACTOR IN THE DEVELOPMENT OF HIP OSTEOARTHRITIS

1. L. Moya,
2. R. Buly,
3. F. Henn,
4. B. Kelly,
5. Y. Ma and
6. D. Molisani

- 142 pacientes:

-Alfa $>49^\circ$

-Cross-over

-Anteversão femoral $<10^\circ$

- Significância para OA:

-Retroversão femoral ($p=0,046$)

-Coxa vara ($p<0,001$)

J Bone Joint Surg Br 2010 vol. 92-B no. SUPP IV 526

Clinical Outcomes After Arthroscopic Psoas Lengthening: The Effect of Femoral Version

Peter D. Fabricant, M.D., Asheesh Bedi, M.D., Katrina De La Torre, R.N., and
Bryan T. Kelly, M.D.

| | Low/Normal Version ($\leq 25^\circ$) (n = 48)* | High Version ($> 25^\circ$) (n = 19)* | Significance |
|-----------------|---|--|--------------|
| Preoperatively | | | |
| MHHS | 61.3 \pm 16.3 (n=26) | 66.0 \pm 13.5 (n=11) | NS |
| HOS-ADL | 69.6 \pm 18.2 (n=26) | 66.0 \pm 11.9 (n=11) | NS |
| HOS-sport | 50.0 \pm 24.7 (n=25) | 26.6 \pm 21.5 (n=10) | P = .013 |
| Postoperatively | | | |
| MHHS | 86.1 \pm 14.8 (n=48) | 76.9 \pm 16.8 (n=19) | P = .031 |
| HOS-ADL | 87.9 \pm 14.4 (n=48) | 82.5 \pm 18.2 (n=19) | NS |
| HOS-sport | 70.7 \pm 25.6 (n=39) | 59.4 \pm 33.7 (n=17) | NS (P = .17) |

Arthroscopy: The Journal of Arthroscopic and Related Surgery, Vol xx, No x (Month), 2012: pp xxx

THE JOURNAL OF BONE & JOINT SURGERY

J B & J S

This is an enhanced PDF from The Journal of Bone and Joint Surgery

The PDF of the article you requested follows this cover page.

Current Concepts Review - Acetabular and Femoral Anteversion: Relationship with Osteoarthritis of the Hip

D. TÖNNIS and A. HEINECKE

J Bone Joint Surg Am. 1999;81:1747-70.

GRADES OF DECREASED AND
INCREASED ACETABULAR AND FEMORAL ANTEVERSION
RELATIVE TO THE ASSUMED NORMAL RANGE

| Grade | Range (degrees) | Description |
|-------|--------------------|----------------------|
| -3 | <10 | Severely decreased |
| -2 | 10 to 14 | Moderately decreased |
| 1 | 15 to 20 | Assumed normal range |
| +2 | 21 to 25 | Moderately increased |
| +3 | >25 | Severely increased |

TABLE XI
PREVALENCE OF OSTEOARTHRITIS (GRADES 0 TO 3) IN HIPs WITH
VARIOUS GRADES OF ACETABULAR AND FEMORAL ANTEVERSION

| Group | Grade of Anteversion (Acetabular/Femoral) | No. of Patients (N = 139) | No. of Hips (N = 257) | No. (Percent) of Hips with Osteoarthritis | | | |
|-------|---|---------------------------------|-----------------------------|---|---------|---------|---------|
| | | | | Grade 0 | Grade 1 | Grade 2 | Grade 3 |
| 1 | -3/-3 | 22 | 24 | 15 (63) | 4 (17) | 2 (8) | 3 (13) |
| 2 | -2, -3/-2, -3 | 58 | 73 | 47 (64) | 15 (21) | 7 (10) | 4 (5) |
| 3 | -2, -3/+2, +3 | 17 | 23 | 19 (83) | 3 (13) | 1 (4) | 0 (0) |
| 4 | +2, +3/-2, -3 | 37 | 51 | 31 (61) | 15 (29) | 4 (8) | 1 (2) |
| 5 | -2, -3/1 | 12 | 13 | 11 | 1 | 1 | 0 |
| 6 | 1/-2, -3 | 44 | 49 | 38 (78) | 7 (14) | 2 (4) | 2 (4) |
| 7 | 1/1 | 7 | 7 | 4 | 1 | 1 | 1 |
| 8 | +3/+3 | 2 | 4 | 2 | 1 | 1 | 0 |
| 9 | +2, +3/+2, +3 | 8 | 13 | 8 | 4 | 1 | 0 |

Relationship Between Proximal Femoral and Acetabular Alignment in Normal Hip Joints Using 3-Dimensional Computed Tomography

Leonard T. Buller,* BA, James Rosneck,* MD, Feno M. Monaco,* BS, Robert Butler,* MS, Travis Smith,* DO, and Wael K. Barsoum,*[†] MD

Investigation performed at the Department of Orthopaedic Surgery, Orthopaedic and Rheumatologic Institute, Cleveland Clinic, Cleveland, Ohio

-115 pacientes ASSINTOMÁTICOS

- 230 quadris

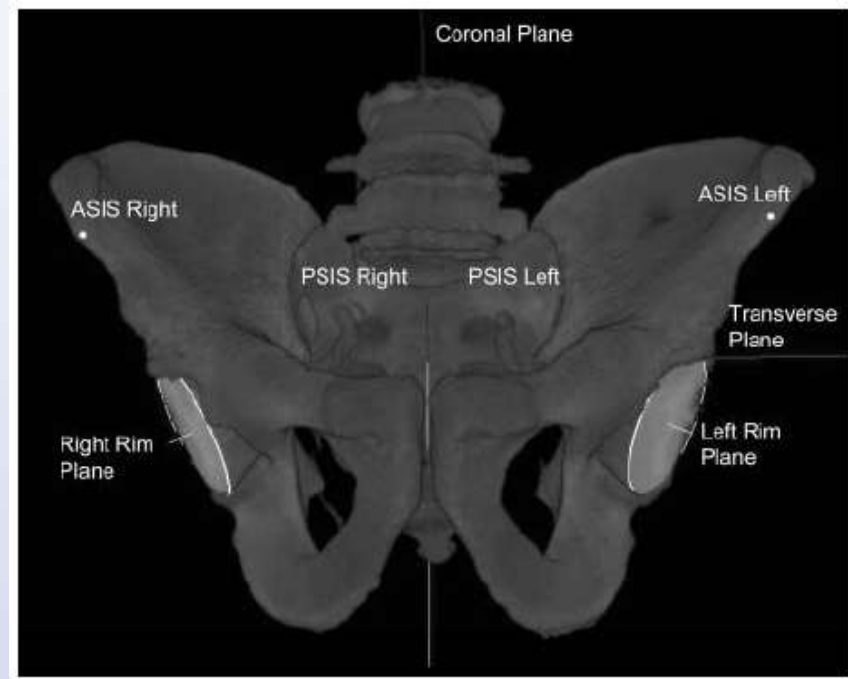
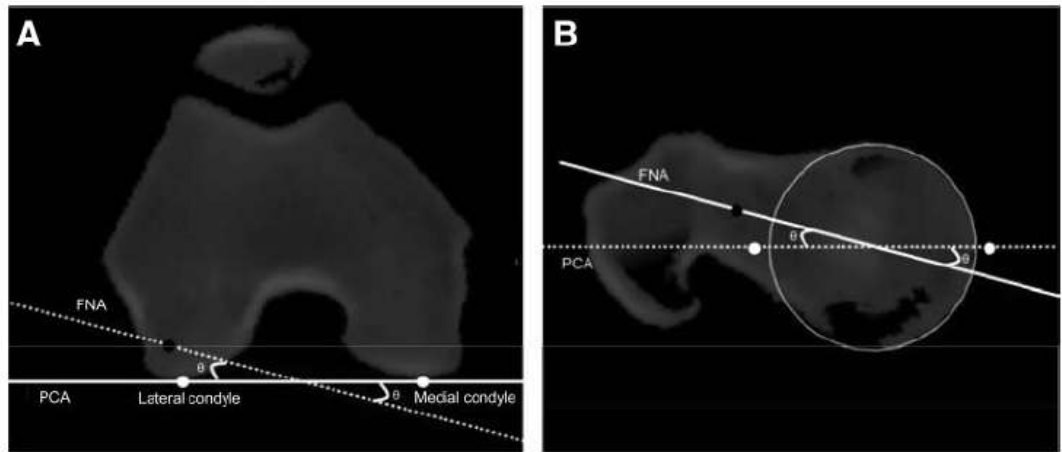
- Tomografia Computadorizada
(pesquisa de aneurisma)

- versão femoral X versão acetabular
($p < 0,05$)

- “Compensação” anatômica

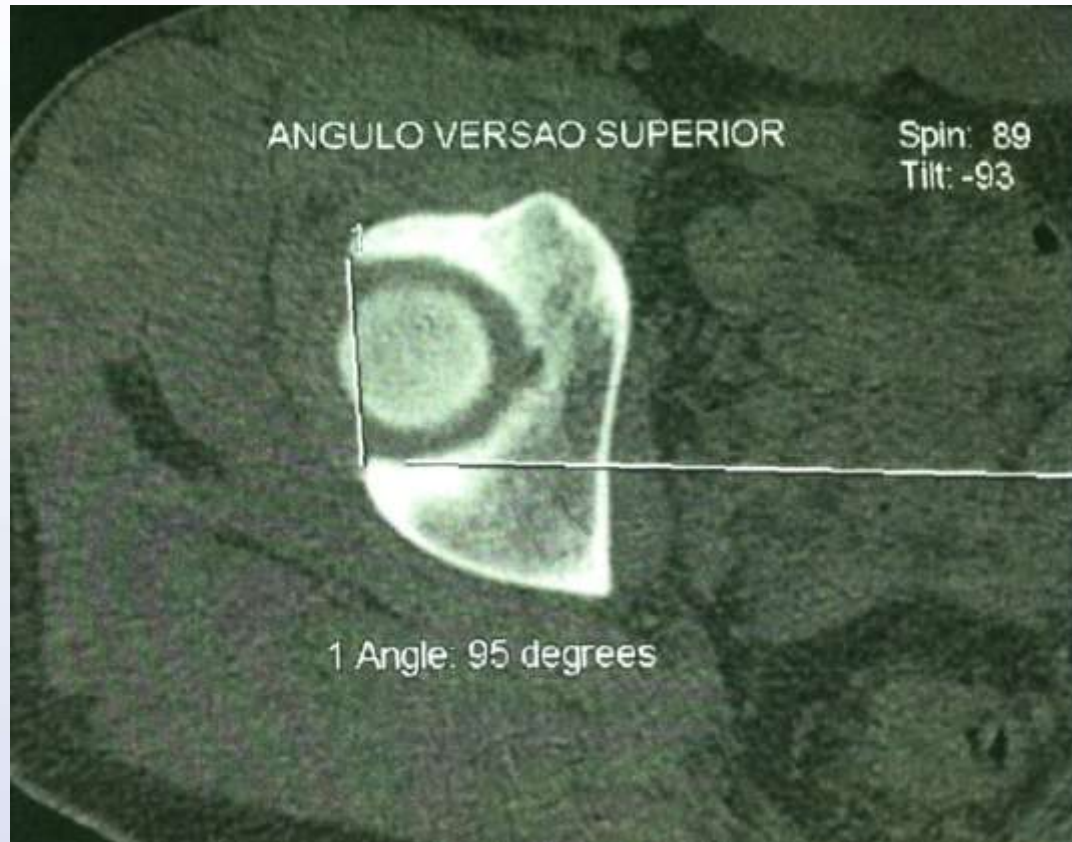
- Retroversão “patológica” = NORMAL

- Sugestão: avaliar qq SINTOMÁTICOS



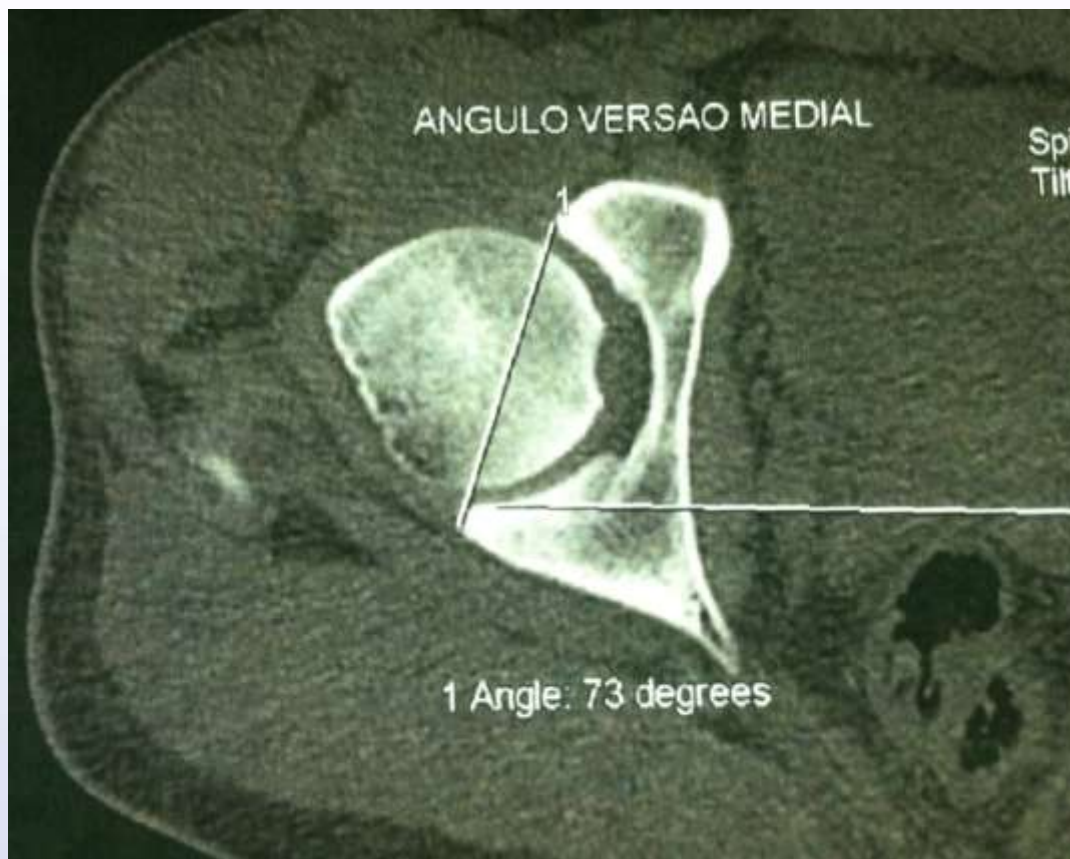
103 QUADRIS SINTOMÁTICAS

- Sinal do Impacto +
- Idade média 37a
- TC multislice
- Avaliados:
 - versão acetabular superior



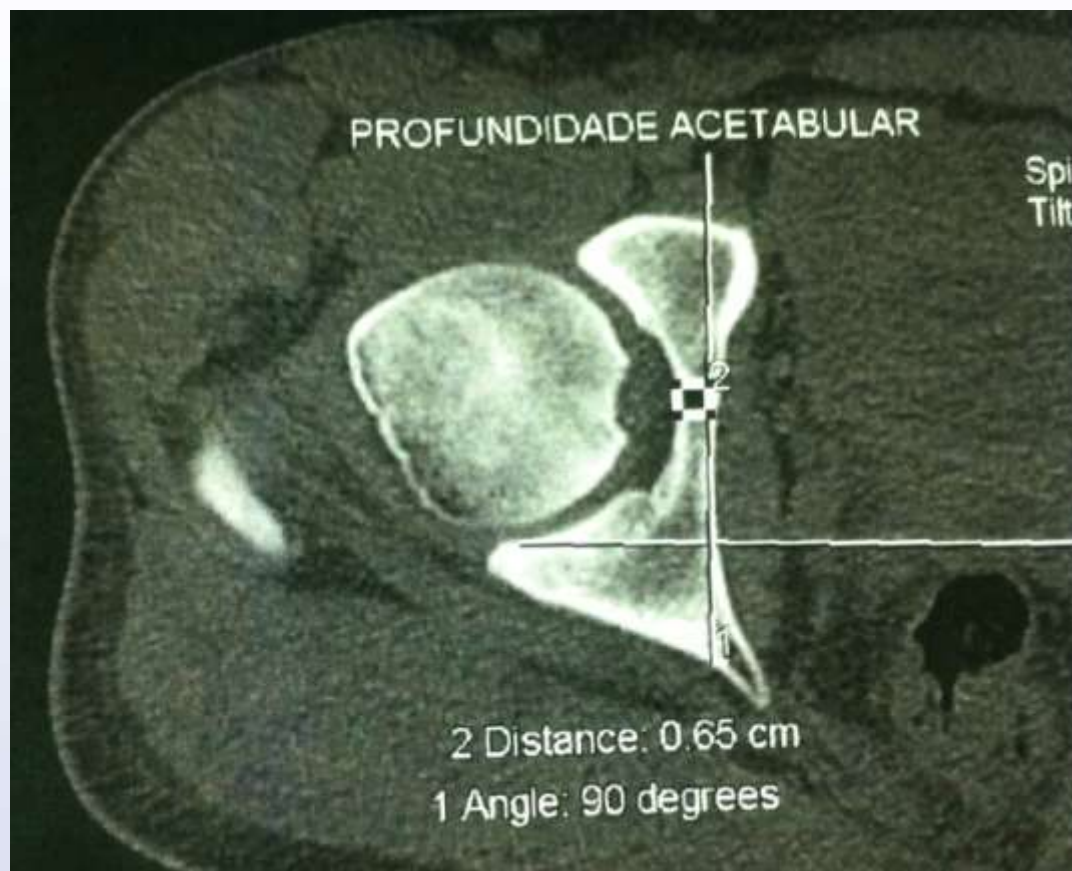
103 QUADRIS SINTOMÁTICAS

- Sinal do Impacto +
- Idade média 37a
- TC multislice
- Avaliados:
 - versão acetabular superior
 - versão acetabular média



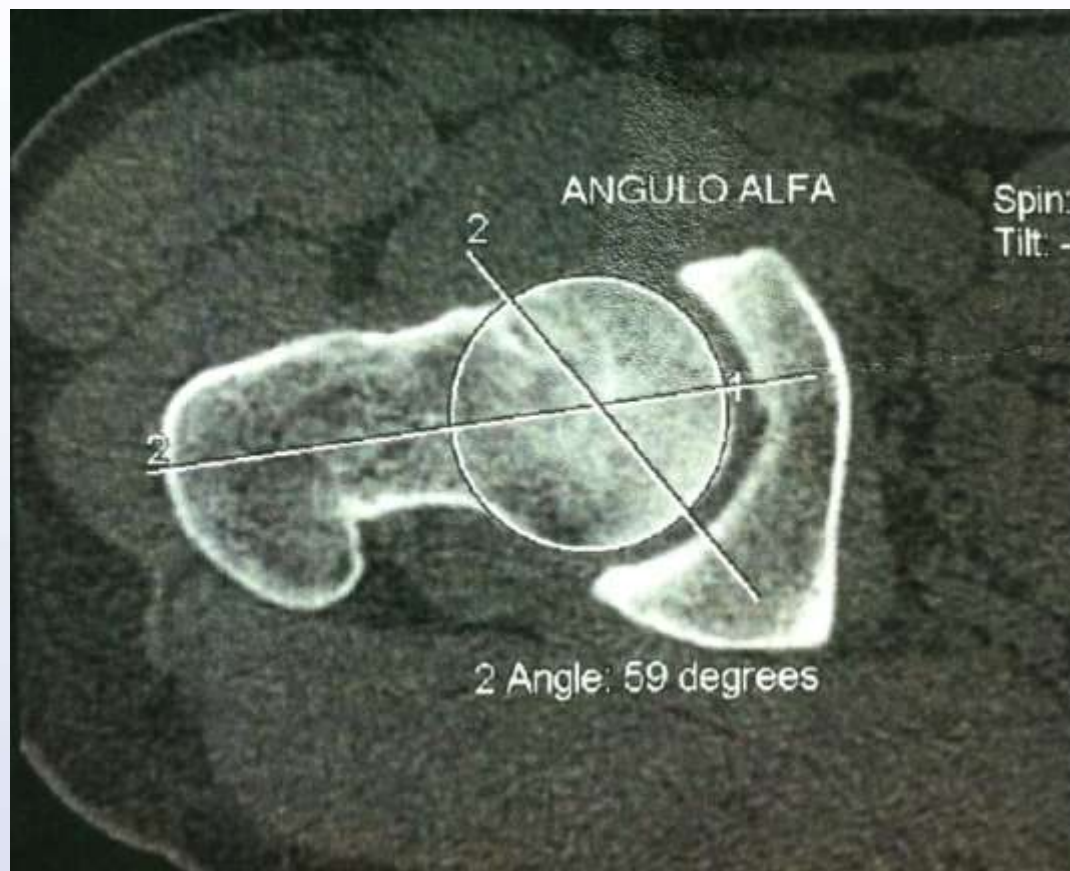
103 QUADRIS SINTOMÁTICAS

- Sinal do Impacto +
- Idade média 37a
- TC multislice
- Avaliados:
 - versão acetabular superior
 - versão acetabular média
 - profundidade acetabular



103 QUADRIS SINTOMÁTICAS

- Sinal do Impacto +
- Idade média 37a
- TC multislice
- Avaliados:
 - versão acetabular superior
 - versão acetabular média
 - profundidade acetabular
 - Ângulo Alfa



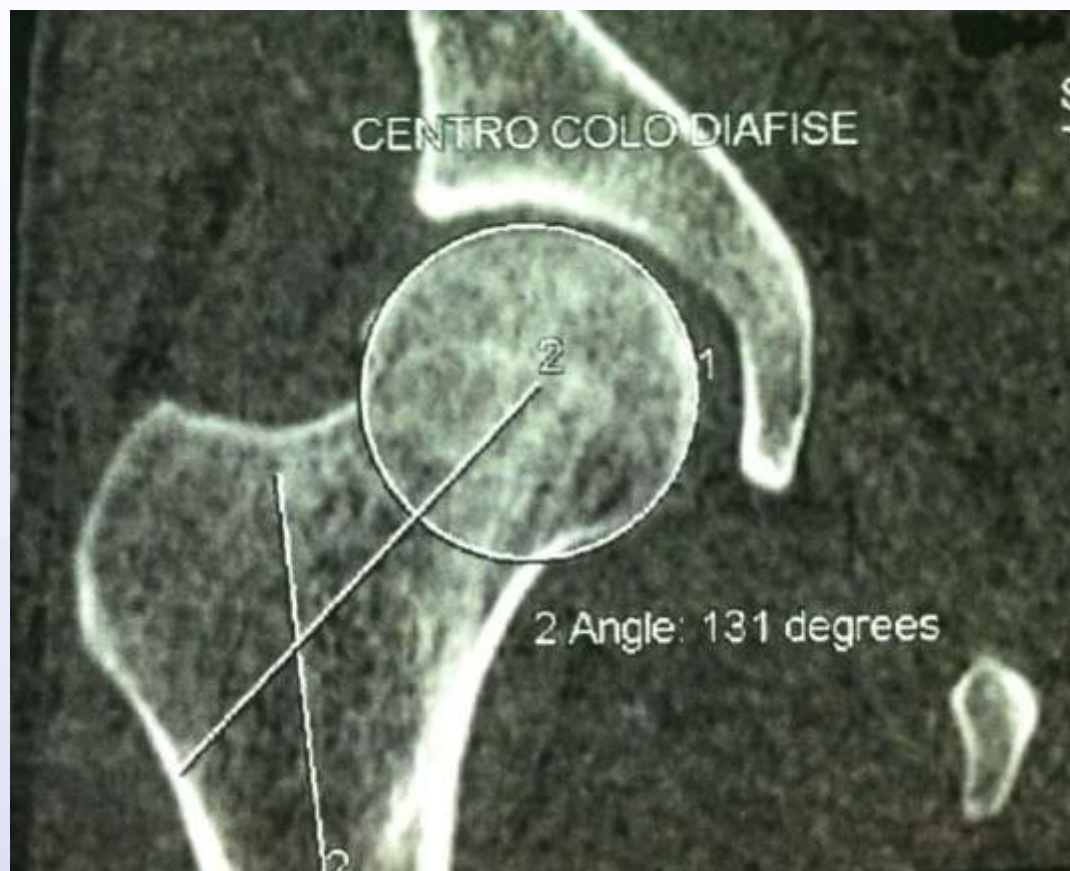
103 QUADRIS SINTOMÁTICAS

- Sinal do Impacto +
- Idade média 37a
- TC multislice
- Avaliados:
 - versão acetabular superior
 - versão acetabular média
 - profundidade acetabular
 - Ângulo Alfa
 - Wiberg



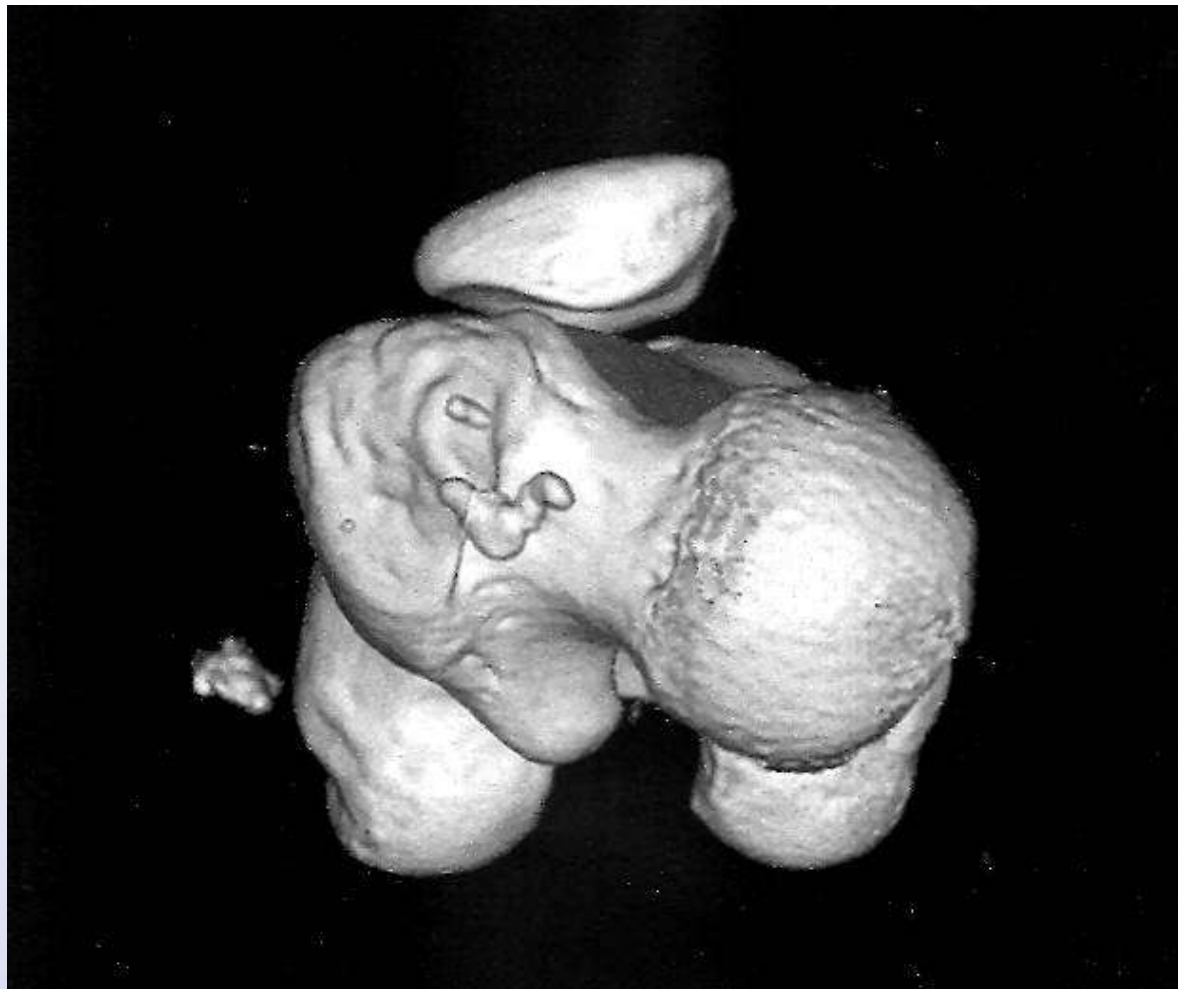
103 QUADRIS SINTOMÁTICAS

- Sinal do Impacto +
- Idade média 37a
- TC multislice
- Avaliados:
 - versão acetabular superior
 - versão acetabular média
 - profundidade acetabular
 - Ângulo Alfa
 - Wiberg
 - Ângulo cervico-diafisário



103 QUADRIS SINTOMÁTICOS

- Sinal do Impacto +
- Idade média 37a
- TC multislice
- Avaliados:
 - versão acetabular superior
 - versão acetabular média
 - profundidade acetabular
 - Ângulo Alfa
 - Wiberg
 - Ângulo cervico-diafisário
 - Versão femoral



103 QUADRIS SINTOMÁTICAS

- Sinal do Impacto +

- Idade média 37a

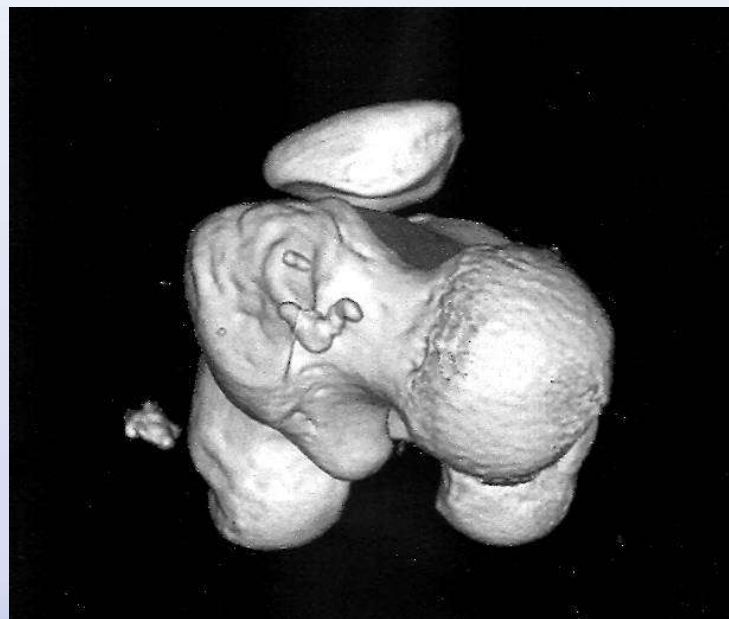
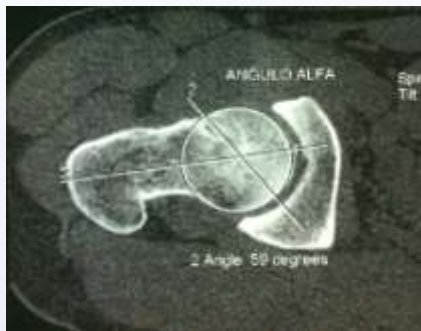
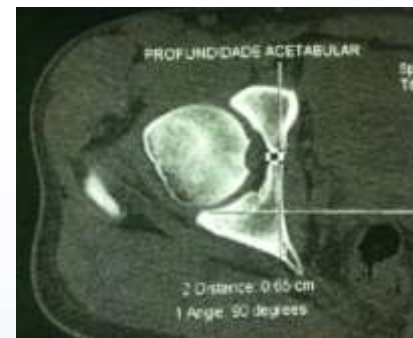
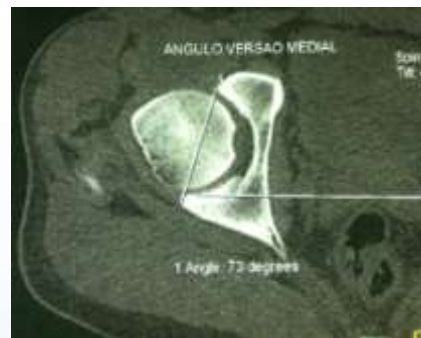
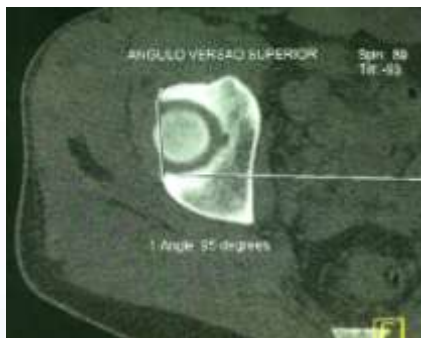
- TC multislice

- Avaliados:

- versão acetabular superior
- versão acetabular média
- profundidade acetabular
- Ângulo Alfa
- Wiberg
- Ângulo cervico-diafisário
- Versão femoral

- Estatística:

- Pearson



103 pacientes

| | | wiberg | profundidade | acetábulo cranial (neg: retro) | acetábulo terço médio | ângulo cervico-diafisário | ângulo alfa | ângulo de versão femoral |
|--------------------------------|---------------------|--------|--------------|--------------------------------|-----------------------|---------------------------|-------------|--------------------------|
| wiberg | Pearson Correlation | 1 | -,159 | ,450 | ,097 | -,046 | -,231 | -,029 |
| | Sig. (2-tailed) | | ,109 | ,000 | ,328 | ,646 | ,019 | ,775 |
| | N | 103 | 103 | 103 | 103 | 103 | 103 | 103 |
| profundidade | Pearson Correlation | -,159 | 1 | -,352 | -,377 | ,274 | ,140 | ,025 |
| | Sig. (2-tailed) | ,109 | | ,000 | ,000 | ,005 | ,159 | ,800 |
| | N | 103 | 103 | 103 | 103 | 103 | 103 | 103 |
| acetábulo cranial (neg: retro) | Pearson Correlation | ,450 | -,352 | 1 | ,493 | -,103 | -,194 | -,001 |
| | Sig. (2-tailed) | ,000 | ,000 | | ,000 | ,302 | ,049 | ,989 |
| | N | 103 | 103 | 103 | 103 | 103 | 103 | 103 |
| acetábulo terço médio | Pearson Correlation | ,097 | -,377 | ,493 | 1 | ,060 | -,183 | ,089 |
| | Sig. (2-tailed) | ,328 | ,000 | ,000 | | ,547 | ,065 | ,372 |
| | N | 103 | 103 | 103 | 103 | 103 | 103 | 103 |
| ângulo cervico-diafisário | Pearson Correlation | -,046 | ,274 | -,103 | ,060 | 1 | ,099 | -,019 |
| | Sig. (2-tailed) | ,646 | ,005 | ,302 | ,547 | | ,318 | ,846 |
| | N | 103 | 103 | 103 | 103 | 103 | 103 | 103 |
| ângulo alfa | Pearson Correlation | -,231 | ,140 | -,194 | -,183 | ,099 | 1 | ,104 |
| | Sig. (2-tailed) | ,019 | ,159 | ,049 | ,065 | ,318 | | ,294 |
| | N | 103 | 103 | 103 | 103 | 103 | 103 | 103 |
| ângulo de versão femoral | Pearson Correlation | -,029 | ,025 | -,001 | ,089 | -,019 | ,104 | 1 |
| | Sig. (2-tailed) | ,775 | ,800 | ,989 | ,372 | ,846 | ,294 | |
| | N | 103 | 103 | 103 | 103 | 103 | 103 | 103 |

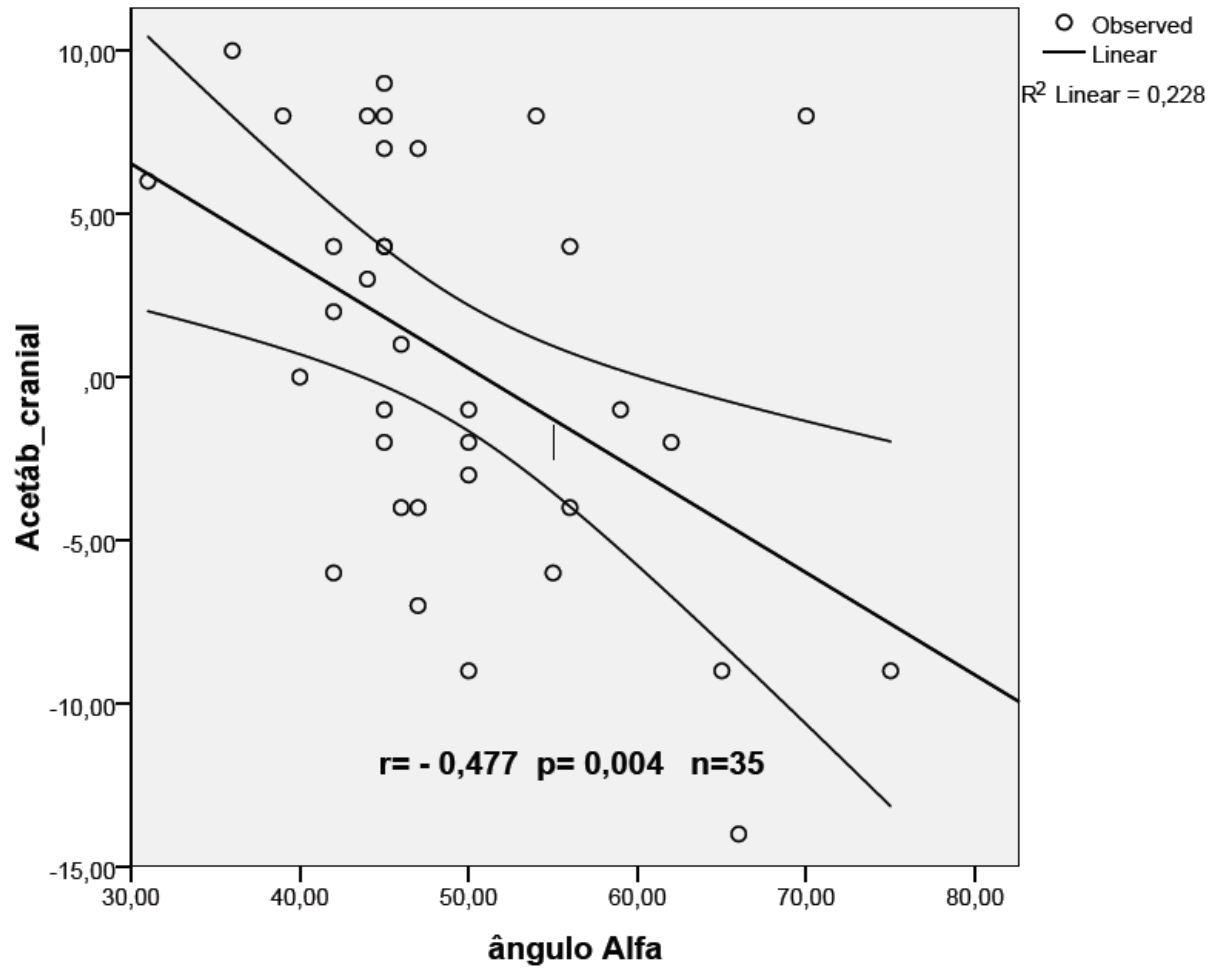
Anteversão femoral <math><15^\circ</math>

| | | wiberg | profundidade | acet_cranial | acet_medio | cerv_diaf | alfa | versão Femoral |
|---------------|---------------------|--------|--------------|--------------|------------|-----------|-------|----------------|
| wiberg | Pearson Correlation | 1 | -,187 | ,333 | ,067 | ,054 | -,176 | -,212 |
| | Sig. (2-tailed) | | ,219 | ,025 | ,661 | ,727 | ,248 | ,161 |
| | N | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| profundidade | Pearson Correlation | -,187 | 1 | -,443 | -,409 | ,164 | ,238 | ,017 |
| | Sig. (2-tailed) | ,219 | | ,002 | ,005 | ,282 | ,116 | ,911 |
| | N | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| acet_cranial | Pearson Correlation | ,333 | -,443 | 1 | ,490 | -,003 | -,331 | ,018 |
| | Sig. (2-tailed) | ,025 | ,002 | | ,001 | ,983 | ,026 | ,906 |
| | N | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| acet_medio | Pearson Correlation | ,067 | -,409 | ,490 | 1 | -,003 | -,346 | ,040 |
| | Sig. (2-tailed) | ,661 | ,005 | ,001 | | ,984 | ,020 | ,794 |
| | N | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| cerv_diaf | Pearson Correlation | ,054 | ,164 | -,003 | -,003 | 1 | -,009 | -,034 |
| | Sig. (2-tailed) | ,727 | ,282 | ,983 | ,984 | | ,954 | ,827 |
| | N | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| alfa | Pearson Correlation | -,176 | ,238 | -,331 | -,346 | -,009 | 1 | ,002 |
| | Sig. (2-tailed) | ,248 | ,116 | ,026 | ,020 | ,954 | | ,992 |
| | N | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| versãoFemoral | Pearson Correlation | -,212 | ,017 | ,018 | ,040 | -,034 | ,002 | 1 |
| | Sig. (2-tailed) | ,161 | ,911 | ,906 | ,794 | ,827 | ,992 | |
| | N | 45 | 45 | 45 | 45 | 45 | 45 | 45 |

Versão Acetabular <10°

| | | wiberg | profund | acet_cran | acet_medio | cerv_diaf | alfa | vers_femoral |
|--------------|---------------------|--------|---------|-----------|------------|-----------|-------|--------------|
| wiberg | Pearson Correlation | 1 | -,236 | ,250 | ,140 | ,043 | -,151 | -,334 |
| | Sig. (2-tailed) | | ,172 | ,148 | ,423 | ,807 | ,387 | ,050 |
| | N | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| profund | Pearson Correlation | -,236 | 1 | -,305 | -,266 | ,146 | ,227 | ,051 |
| | Sig. (2-tailed) | ,172 | | ,074 | ,122 | ,402 | ,189 | ,769 |
| | N | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| acet_cran | Pearson Correlation | ,250 | -,305 | 1 | ,146 | -,043 | -,477 | -,175 |
| | Sig. (2-tailed) | ,148 | ,074 | | ,402 | ,807 | ,004 | ,314 |
| | N | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| acet_medio | Pearson Correlation | ,140 | -,266 | ,146 | 1 | ,038 | -,434 | -,007 |
| | Sig. (2-tailed) | ,423 | ,122 | ,402 | | ,828 | ,009 | ,967 |
| | N | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| cerv_diaf | Pearson Correlation | ,043 | ,146 | -,043 | ,038 | 1 | ,053 | -,135 |
| | Sig. (2-tailed) | ,807 | ,402 | ,807 | ,828 | | ,764 | ,439 |
| | N | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| alfa | Pearson Correlation | -,151 | ,227 | -,477 | -,434 | ,053 | 1 | ,045 |
| | Sig. (2-tailed) | ,387 | ,189 | ,004 | ,009 | ,764 | | ,799 |
| | N | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| vers_femoral | Pearson Correlation | -,334 | ,051 | -,175 | -,007 | -,135 | ,045 | 1 |
| | Sig. (2-tailed) | ,050 | ,769 | ,314 | ,967 | ,439 | ,799 | |
| | N | 35 | 35 | 35 | 35 | 35 | 35 | 35 |

Correlação Acetábulo cranial < 10 versus Alfa em pac. sintomáticos com Retroversão Femoral



Conclusões:

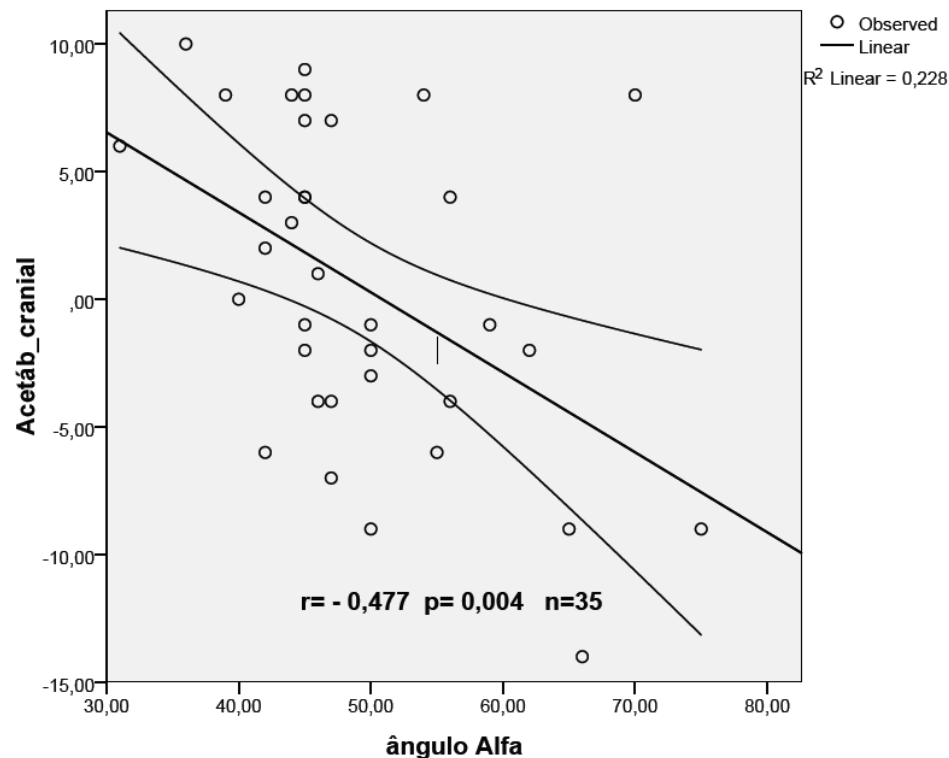
-Em pacientes SINTOMÁTICOS:

- Retroversão acetabular está associada ao aumento do ângulo alfa

-NÃO há compensação entre Versão Femoral e Acetabular

- Considerar a possibilidade de correção do IFA apenas com osteocondroplastia FEMORAL

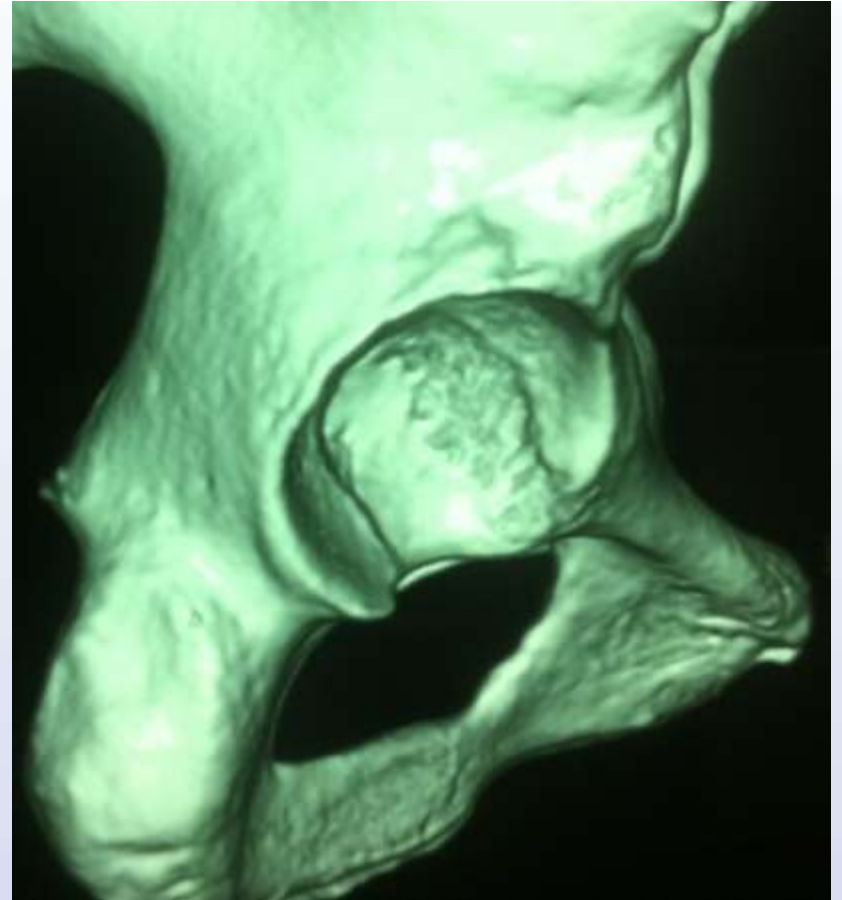
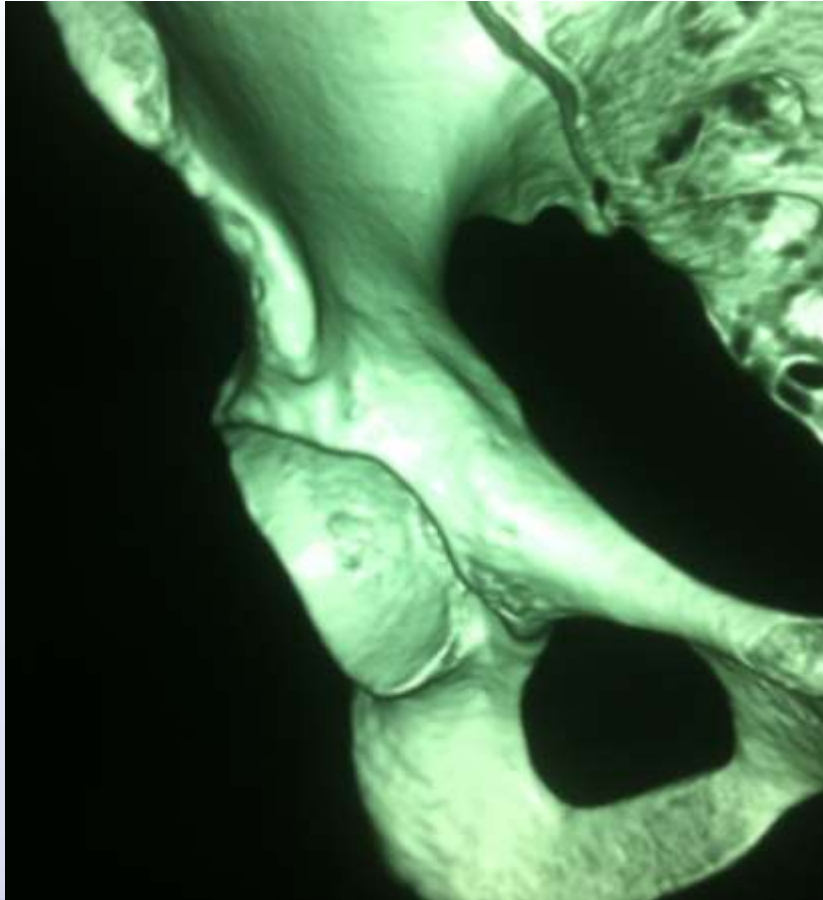
Correlação Acetábulo cranial < 10 versus Alfa em pac. sintomáticos com Retroversão Femoral



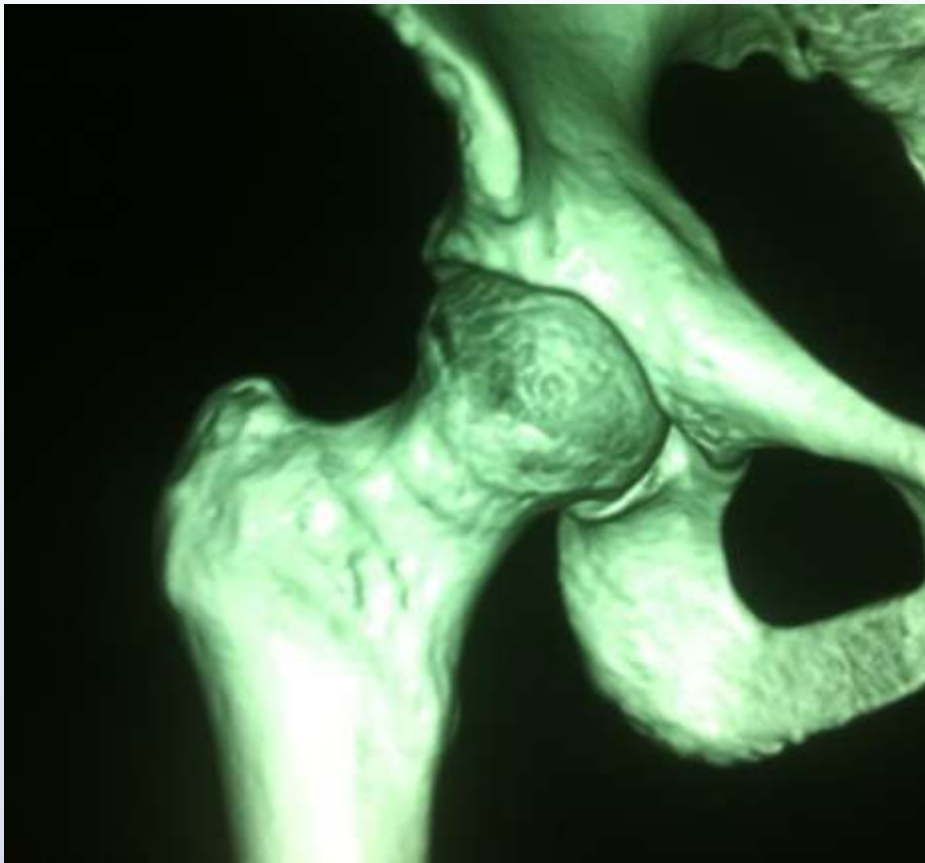
SAP, 42a, fem, atleta amadora



SAP, 42a, fem, atleta amadora



SAP, 42a, fem, atleta amadora



Obrigado



Florianópolis - SC