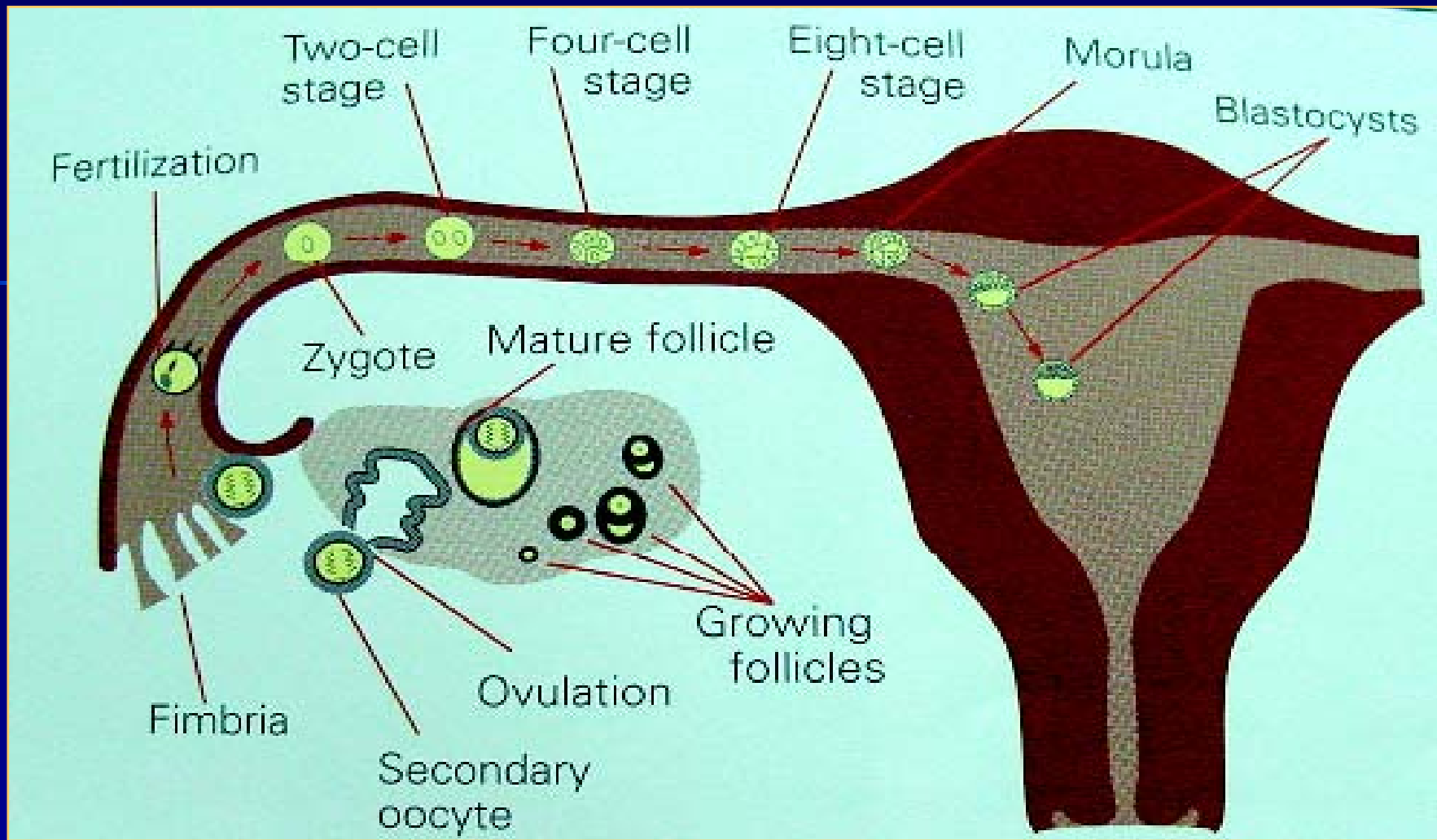
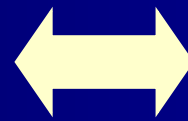


DDH

Freih Odeh Abu Hassan
F.R.C.S (Eng.), F.R.C.S (Tr.&Orth.)
Professor of Orthopedics and Pediatrics
Orthopedics Surgeon
University of Jordan



+ve Pregnancy



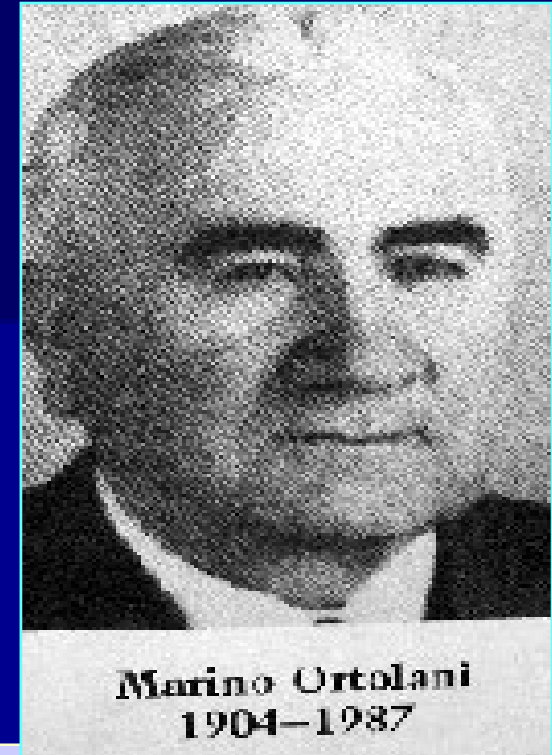
+ve DDH

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Ortolani

Italian Pediatrician



- 1st 3 months.
- Negative in A.D.
- Only +ve for dislocation.

370 Child with DDH

1.37% positive Ortolani test.

Why???

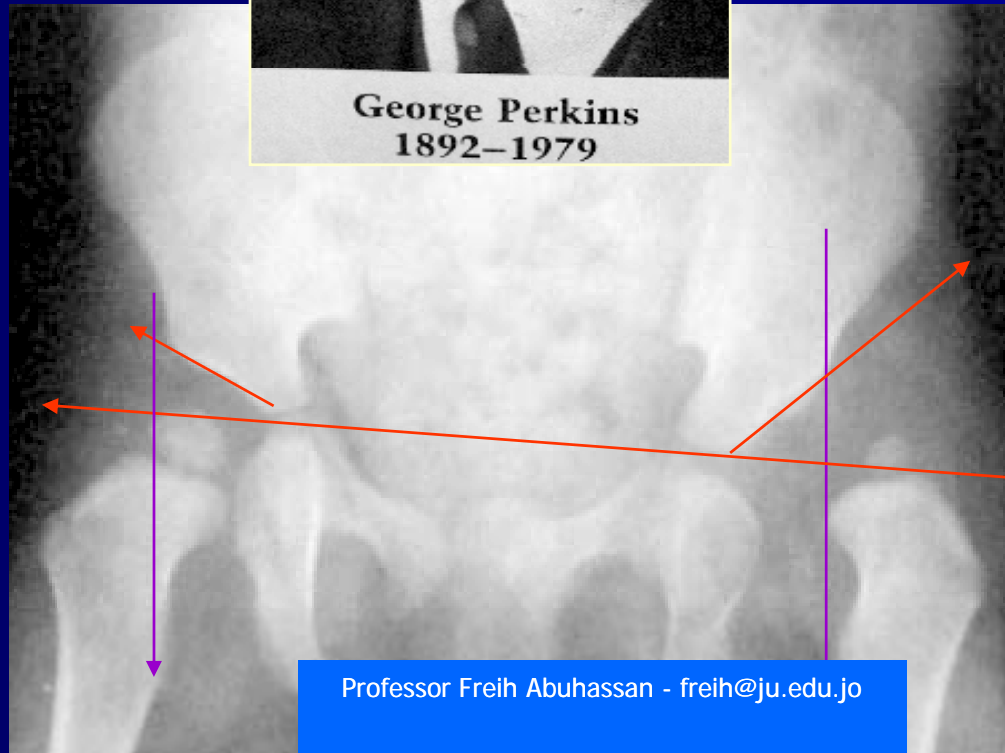
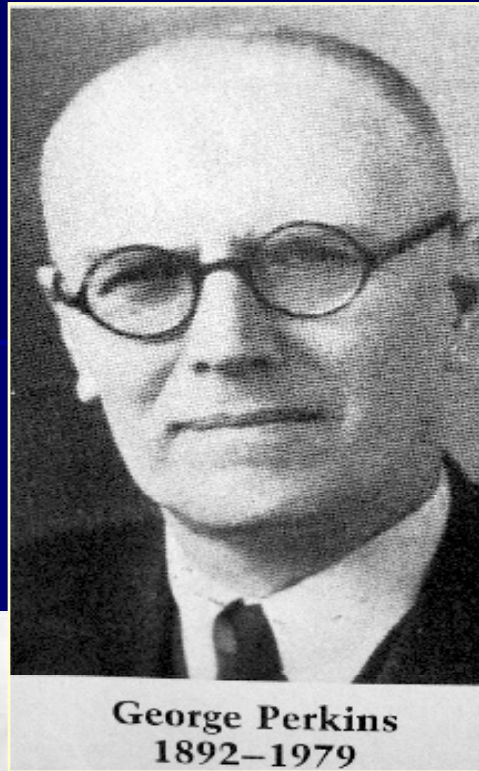
Ultrasound .

- *Not before 9 weeks.
- *Iliac line must be vertical.
- *Cost !!!!!!!

- *Needs the (Orth.) expert !!!!**
- *Dynamic more conclusive**
- * 3 , 4 D USS**
- *You will treat more normal hips !!!**
- * Needs non busy Doctor**

X-ray at 3 M

- **Diagnostic.**
- **Easy follow up.**
- **Cheap.**

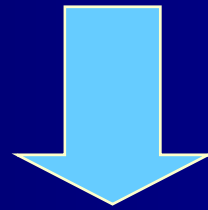


Problems

- *Protective Shield
- *Where is the O.N?
- *High AV angle !!!!!!!
- *ABDIR 30, 15.
- *Pelvic tilt

Mirror of DDH

Normal acetabulum



No DDH



Who is responsible?

CONCLUSION:

=====

NO DEFINITE EVIDENCE OF CDH IS SEEN, BUT FOLLOW UP X-RAY AFTER TWO MONTHS IS SUGGESTED.

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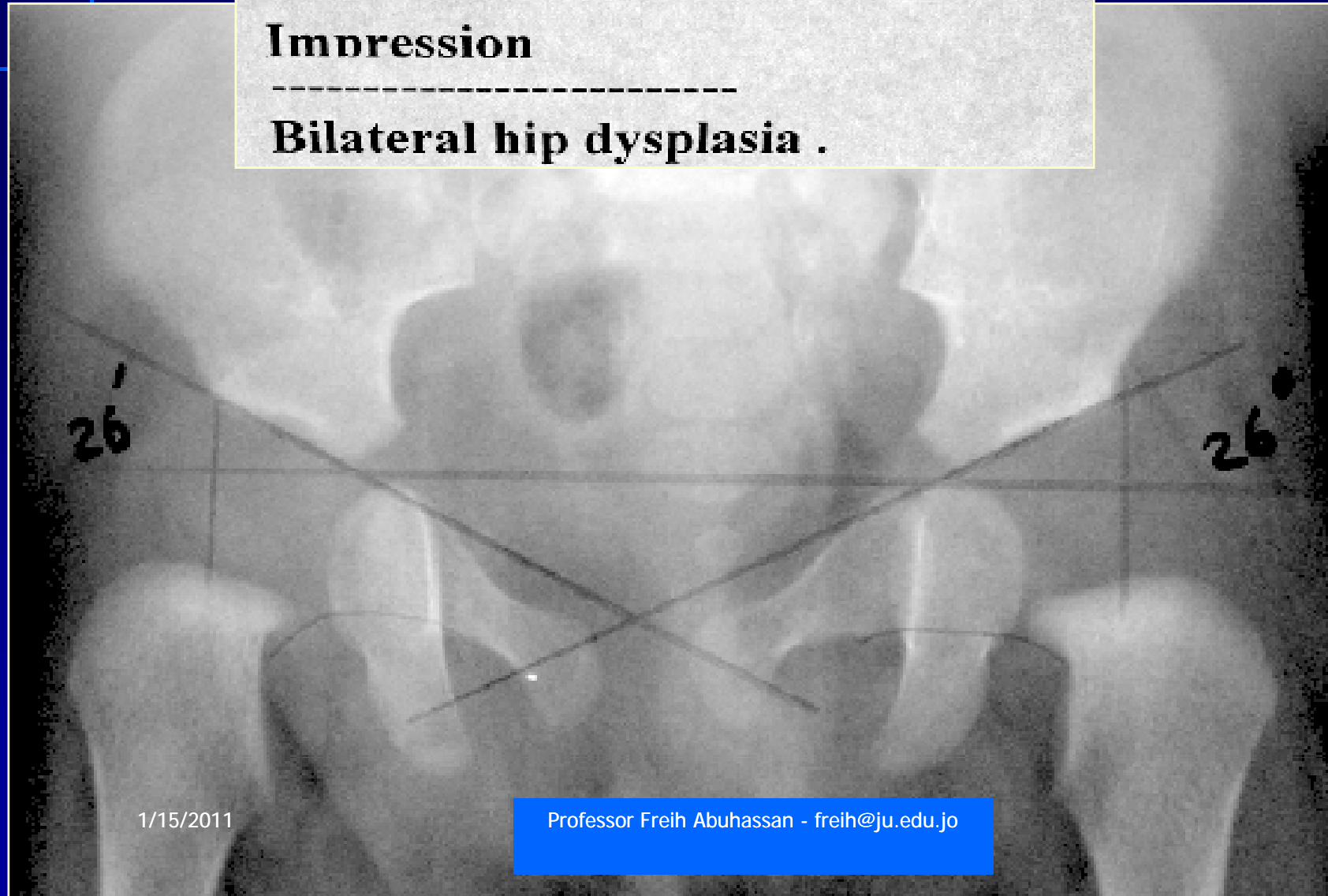
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**Both acetabular angles are normal .
Both femoral heads are not ossified yet .
Shenton lines are not interrupted .**

Impression

Bilateral hip dysplasia .



Associated risk factors in children with DDH

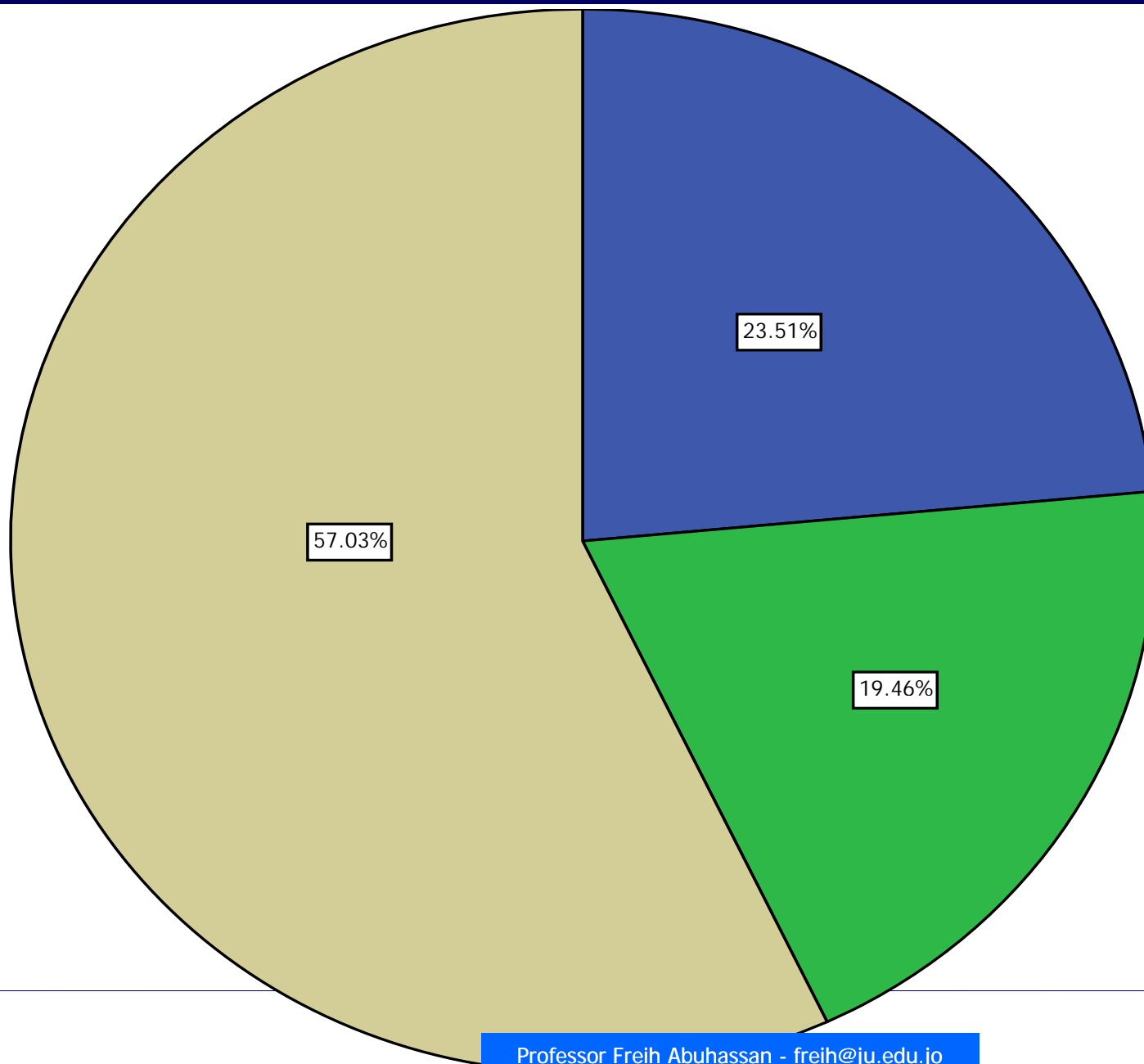
1999-2006

370 Child

311 girls and 59 boys.

3-7m

	Clinical findings	%
1-	Asymmetry of the skin folds	83%
2-	Limitation of hip abduction.	43.2%
3-	Facial asymmetry	4.6%
4-	Feet deformity	2.16%
5-	Torticollis	0.54%



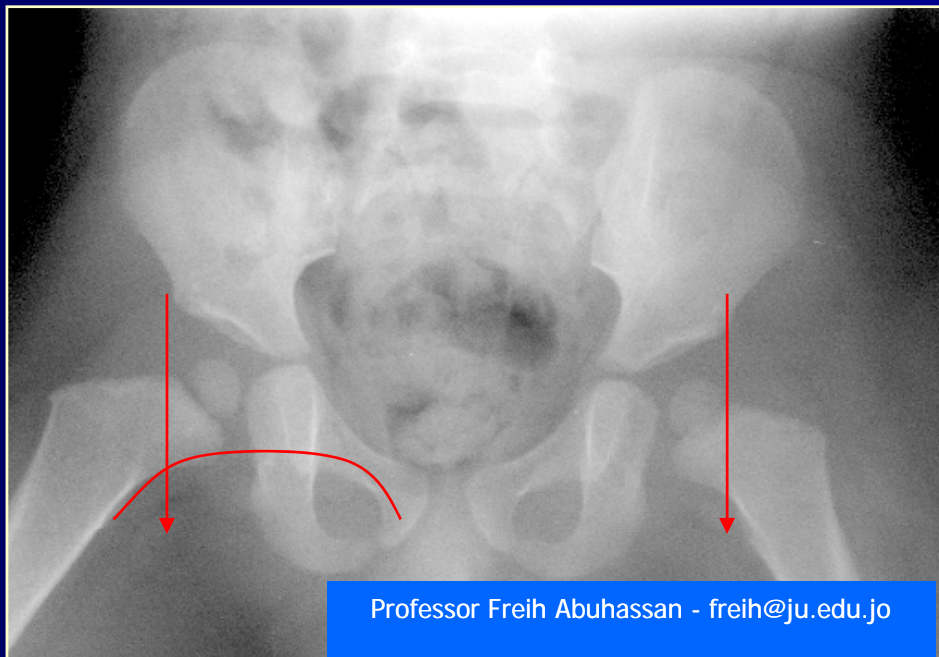
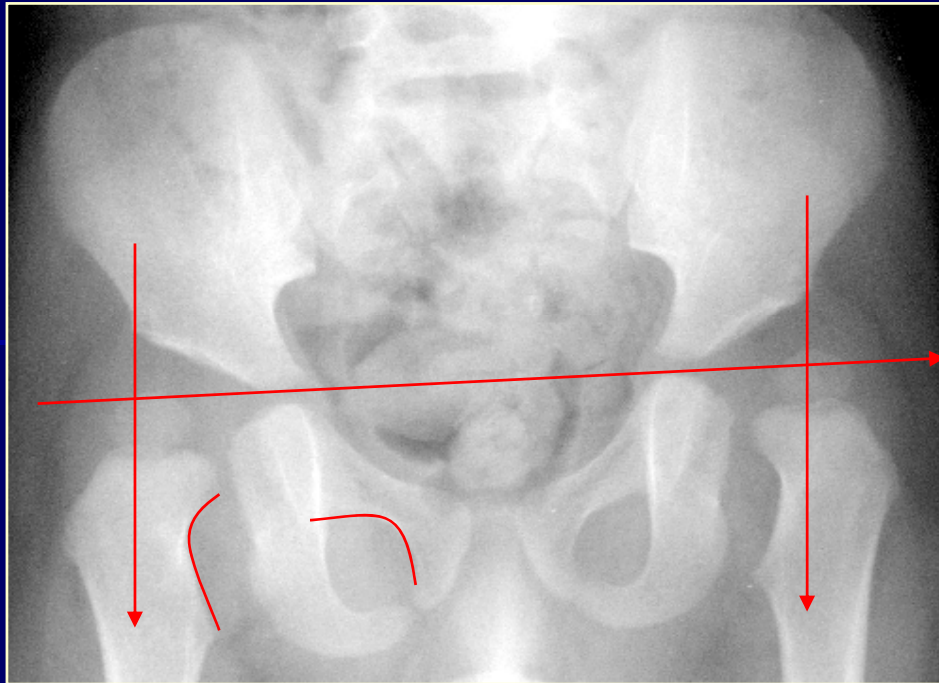
	Associated risk factors	%
1-	Female	83.78%
2-	First child	34%
3-	Family history	28.3%
4-	Caesarian section	12.25%
5-	Breech delivery	2.16%

Pseudo subluxation

Pseudo pregnancy

High anteversion

- *Straight neck-shaft angle
- *O.N Symmetrical
- *Disturbance of Shenton's lines



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The ideal Orthosis

=Rapid cure =Reduce DDH

=Short application time

=Maintain hip flexion and abduction

=Easy for parents

=Not removed daily

=Less complications

Double Napkins



Treats only normal hips

Ilfeld/ Craig

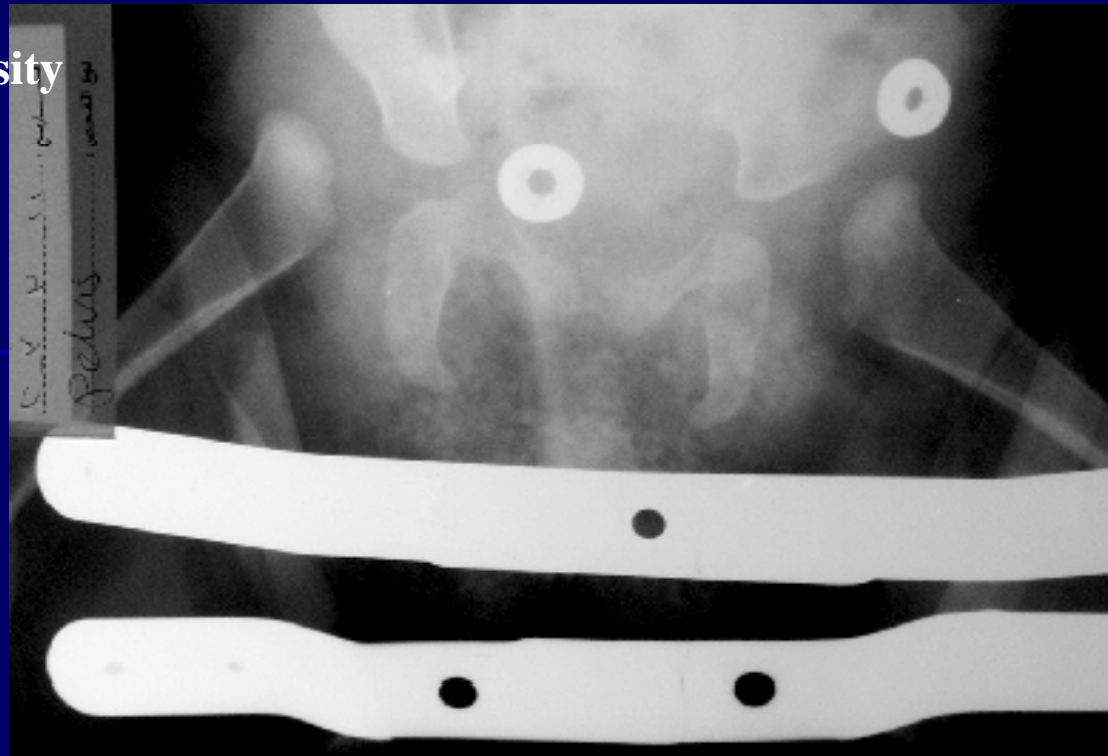
Months of suffering from this orthosis



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= Can't reduce hips =AVN

=Long R/ = Abd. Position only

= Frequent removal

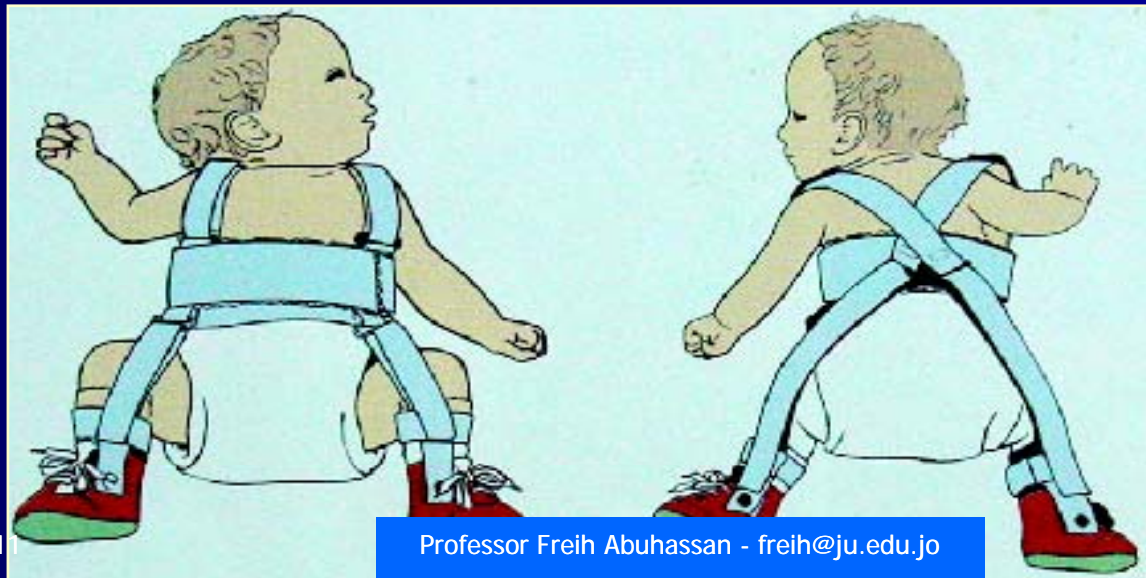


Pavlik Harness



Pavlik problems

- * Bad 1st look from the parents.
- * Poor manufacturer.
- * Doctors hate it ! **(Doctors problem)**





Pavlik the Diamond



- *Simple, Safe, Easy.**
- *Needs only orientation.**
- *Acceptable by the parents.**
- *Very effective.**
- *Short duration of R/**
- *No need to be removed .**

Contraindications of the P Harness

- * **Teratologic dislocation (CDH)**
- * **>6m, Obese child**
- * **Failure of reduction after 4 weeks.**
- * **Irreducible dislocation.**

Compliance of Parents with Pavlik Harness Treatment in DDH

**160 parents
2003- 2006.**

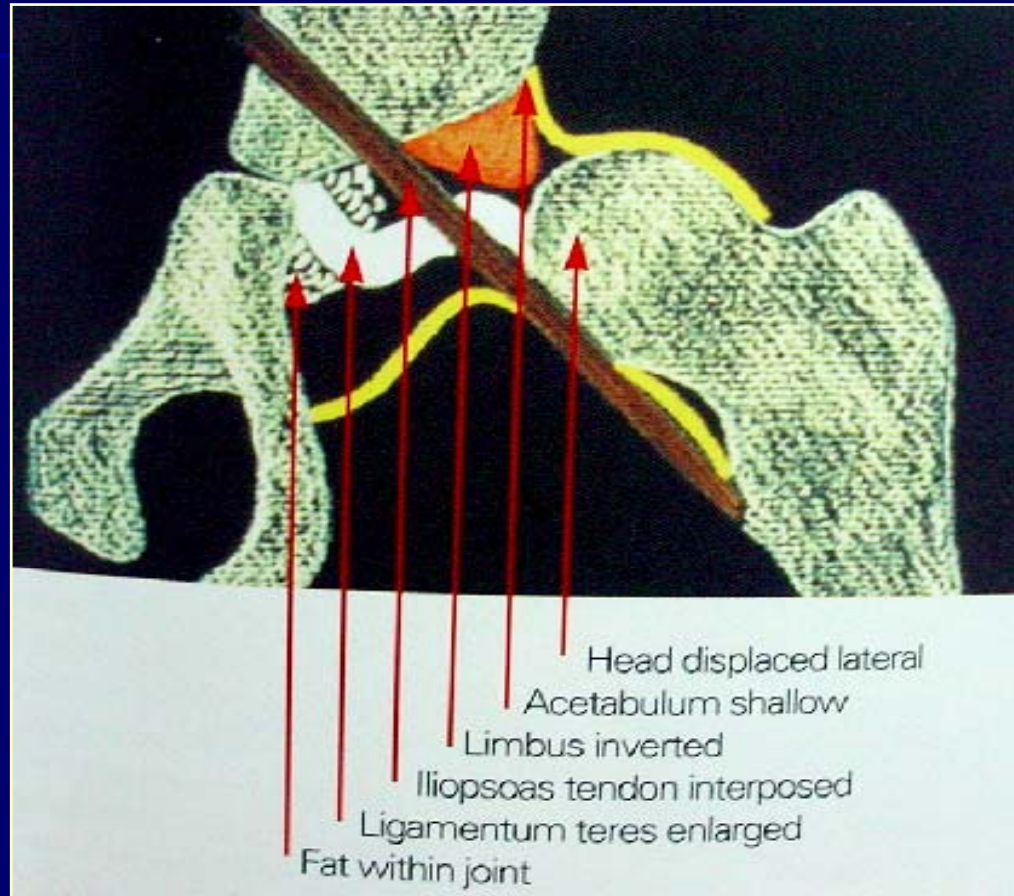
- = 94% followed orders exactly**
- = 96.25% declared the harness are easy**
- = 3.75% difficult to use.**
- =10.6% reported difficulty in 1st week**
- 31.9% various problems during using the harness**

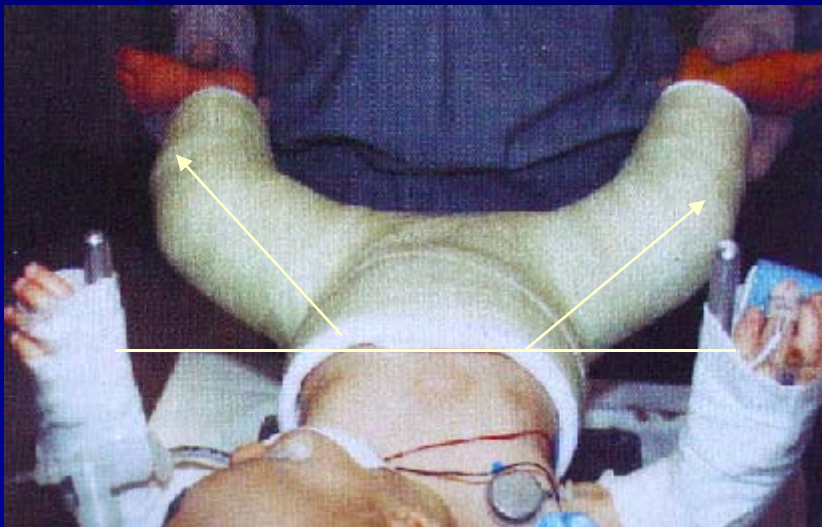
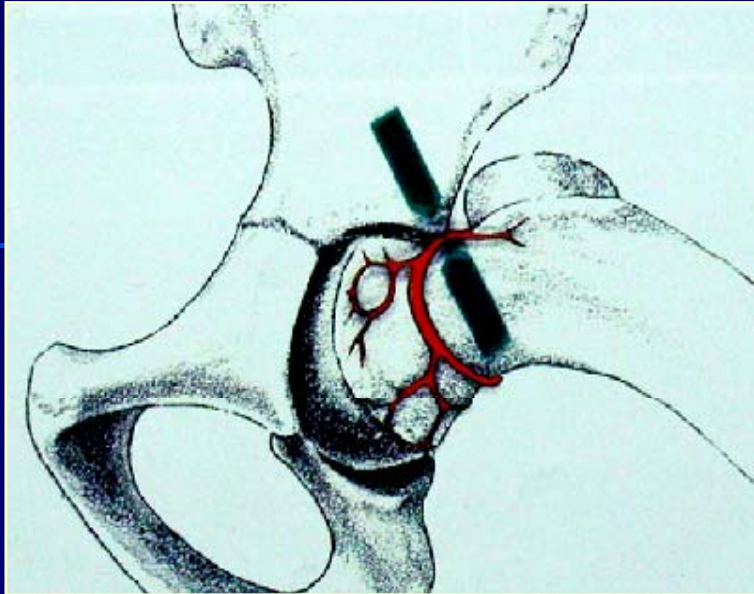
Problems during using the harness

- 1-Skin crease dermatitis**
- 2-Feet slippage from the harness,**
- 3-Difficulty in carrying the child**
- 4-Clothing.**
- 5-Concerns for bathing**

Duration of the harness
When the AI < 30 degree
(6-12w)
Mean 10.6 weeks

Hip spica

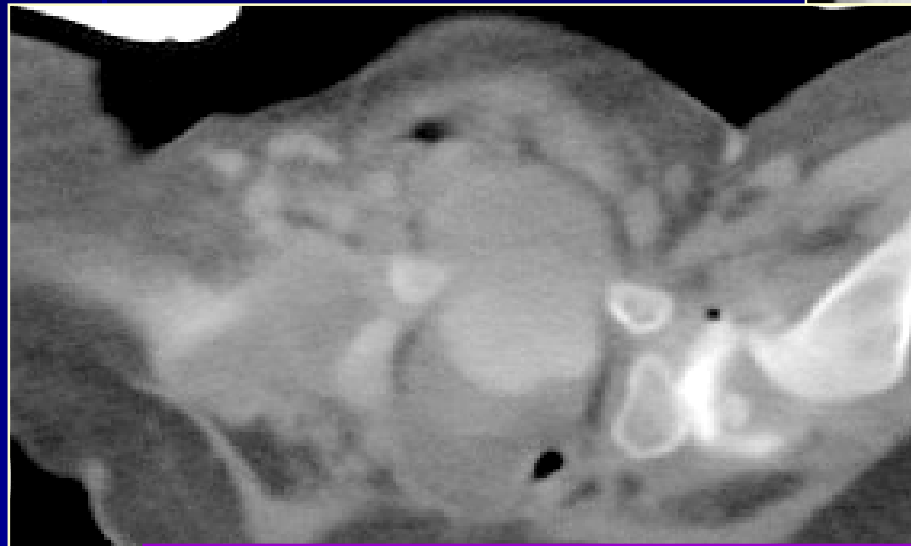




Lorenz

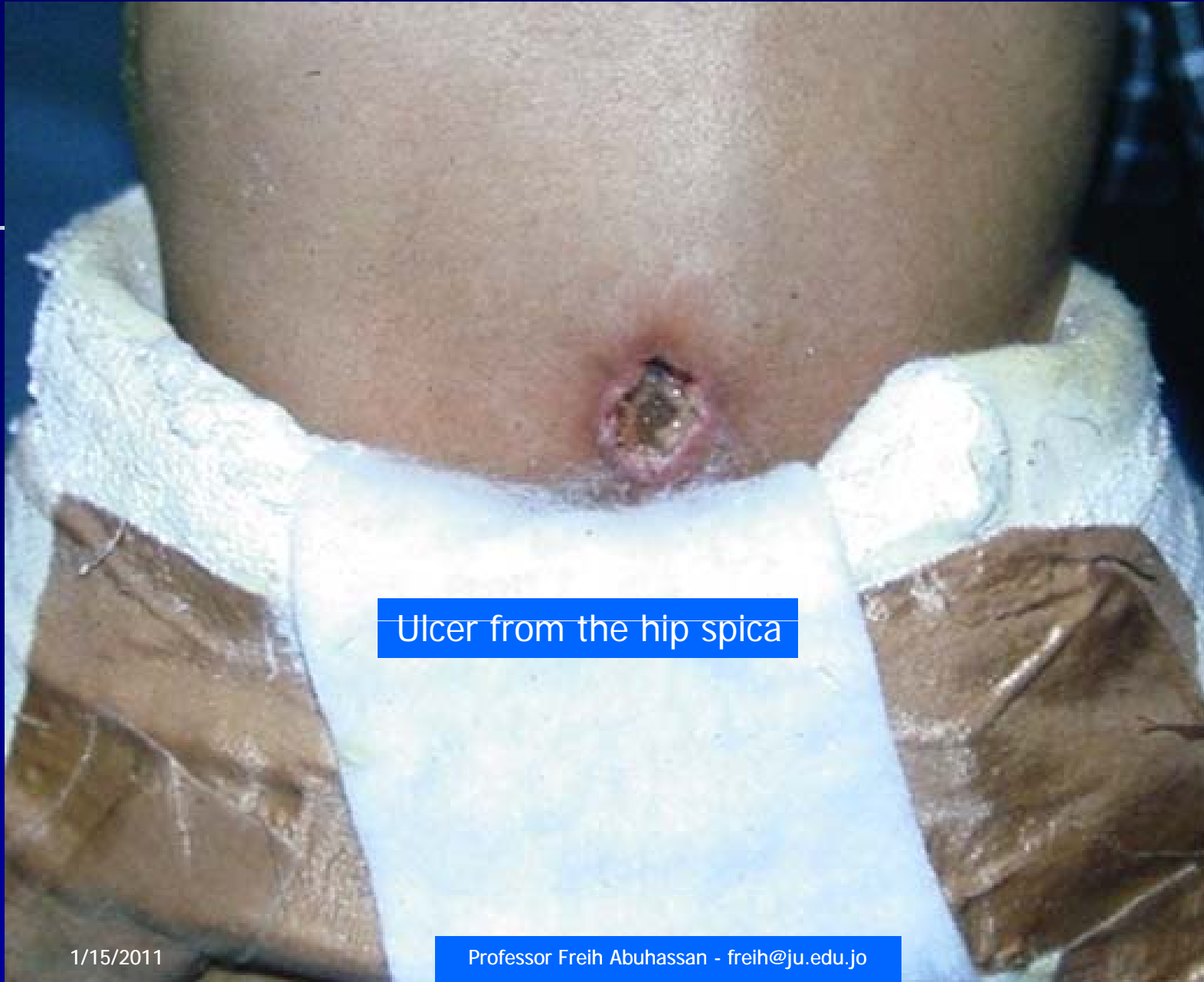


Human Position



**sorry!
I am out.**

Cut the doubt by 2 cuts CT



Ulcer from the hip spica

How long you will keep the Spica ?

1- After closed reduction

$$6 W + 6 W$$

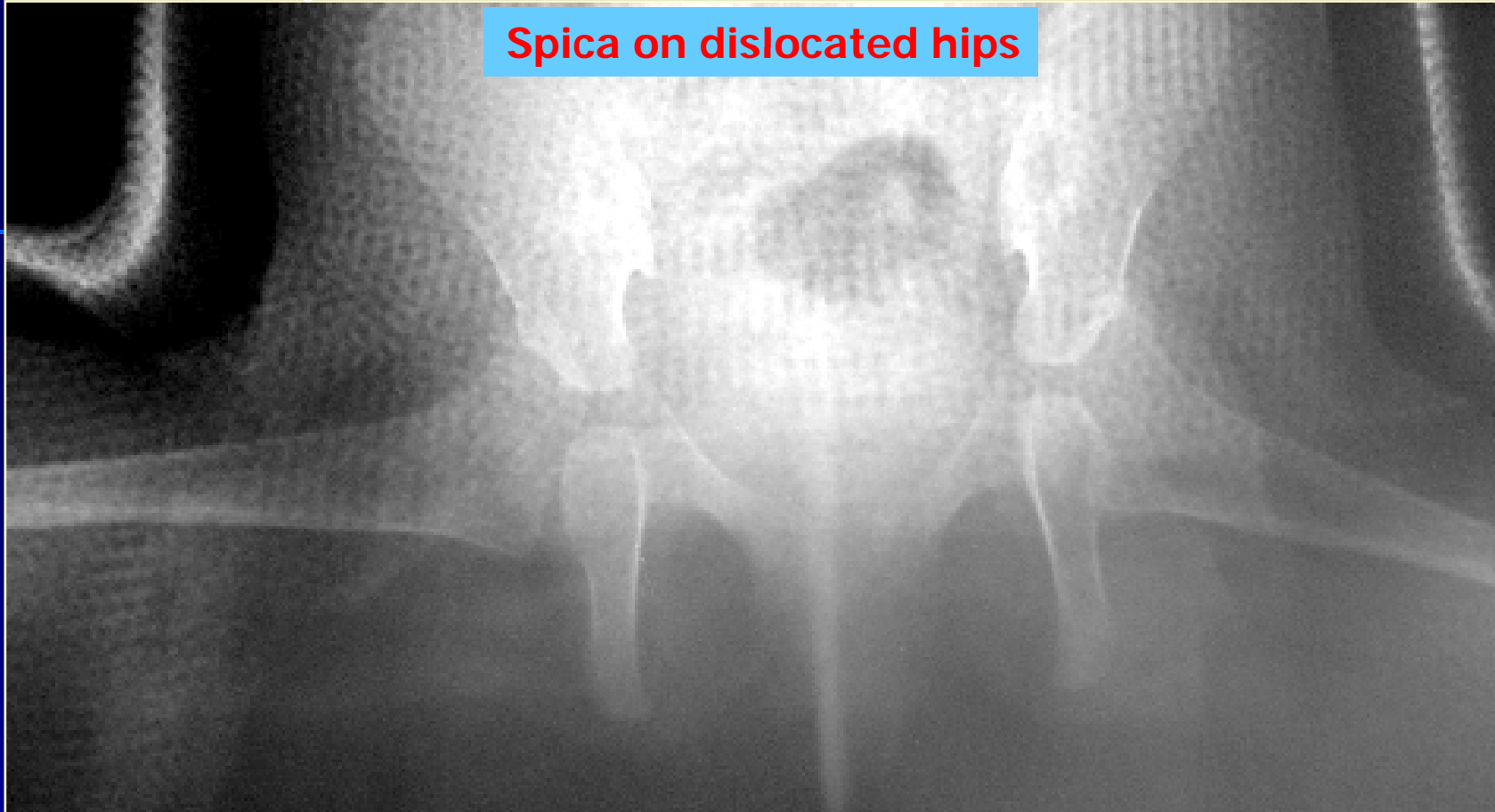
2- After open reduction

$$6 W$$

Preventable Spica Problems

- 1- Osteoporosis → fracture**
- 2- Can hide unreduced hip**
- 3- Hip stiffness**
- 4- Pressure sore**
- 5- Hygiene problems**
- 6- Heavy**

Spica on dislocated hips



The crisis

Don't Force the reduction !!!

= False reduction

- AVN

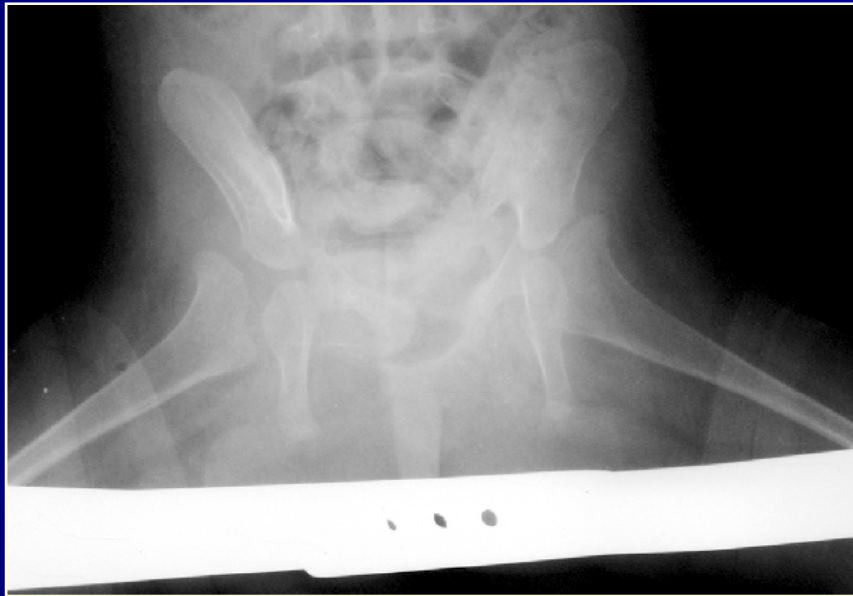
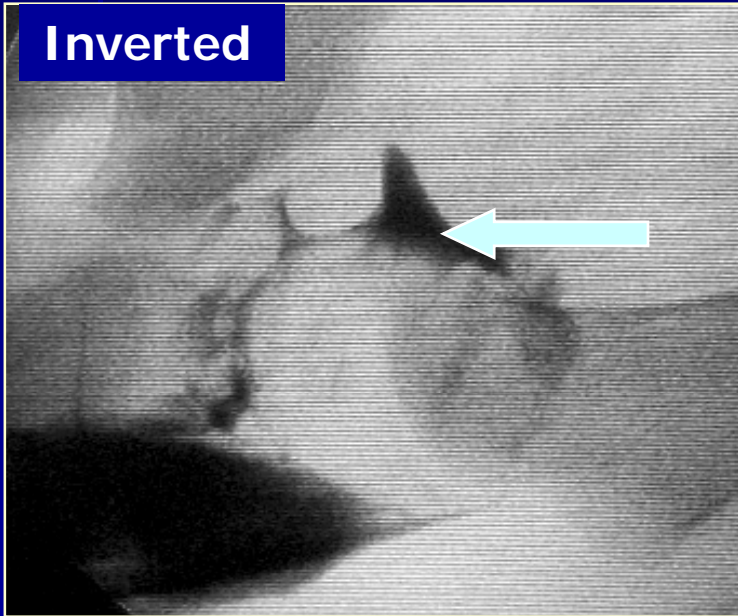
= Fracture

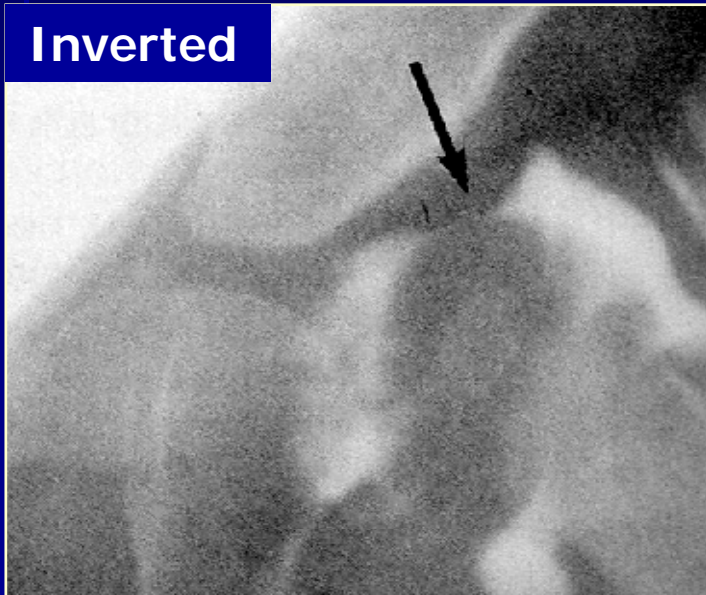
= Redislocation



Do I need to do arthrogram?

All dislocated or subluxed hips coming for closed reduction



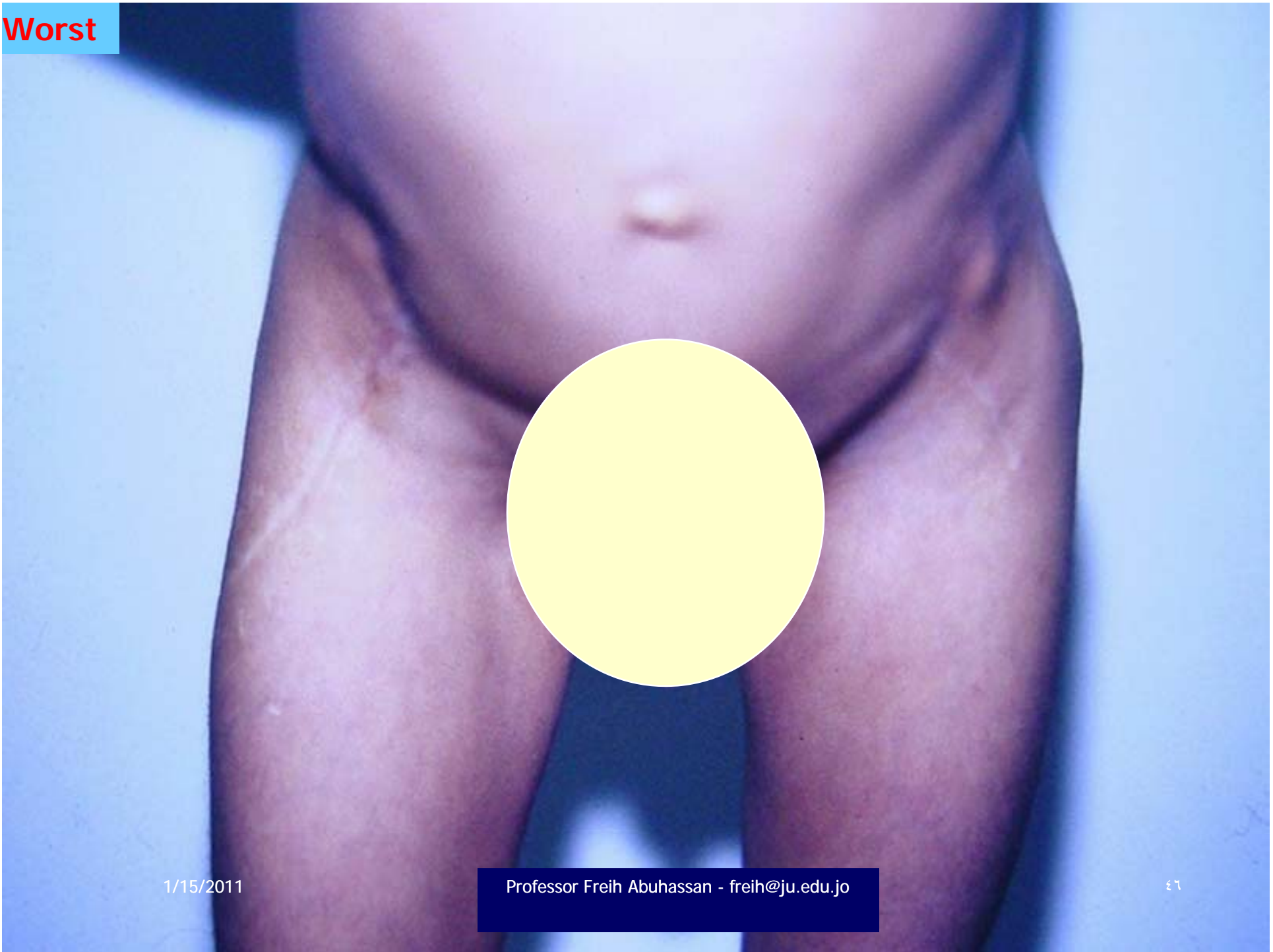


Rose thorn



Which incision should I use to reduce the hip?

Worst



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Worst



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Worst



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The best is Skin crease incision - Bikinni



Hip

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Time will tell !!!!!!!

Follow up till maturity

Ten's of procedures

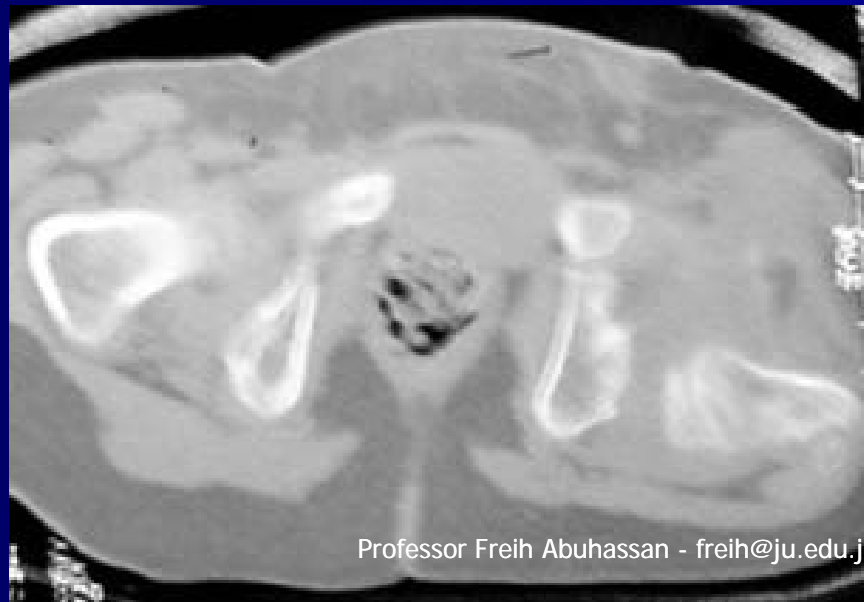


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= Wrong R/. → disability.



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**A 4 m old female child
Dx to to have Rt AD**

2 w later 27-2-2001

admitted for Gallows traction.

O/E

= Symmetrical creases

= -ve Ortolani, Barlows

= Tight adductors

1st Surgeon

12-3-2001

**EUA → dislocatable Rt hip
→ adductor tenotomy.**

**Then 1 week Gallows traction,
followed by Hip spica for 3m.**



Age: 8m

19-06-2001

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Age: 8m

19-06-2001

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Another 10w Bacheolar cast.

ABD

11.5 m

03-10-2001

ADD

11.5 m

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03-10-2001

2nd Surgeon

9-10-2001

Rt AVN

**Plan: -Abduction splint
-see 2m**

12A

21m

13

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05-08-2002



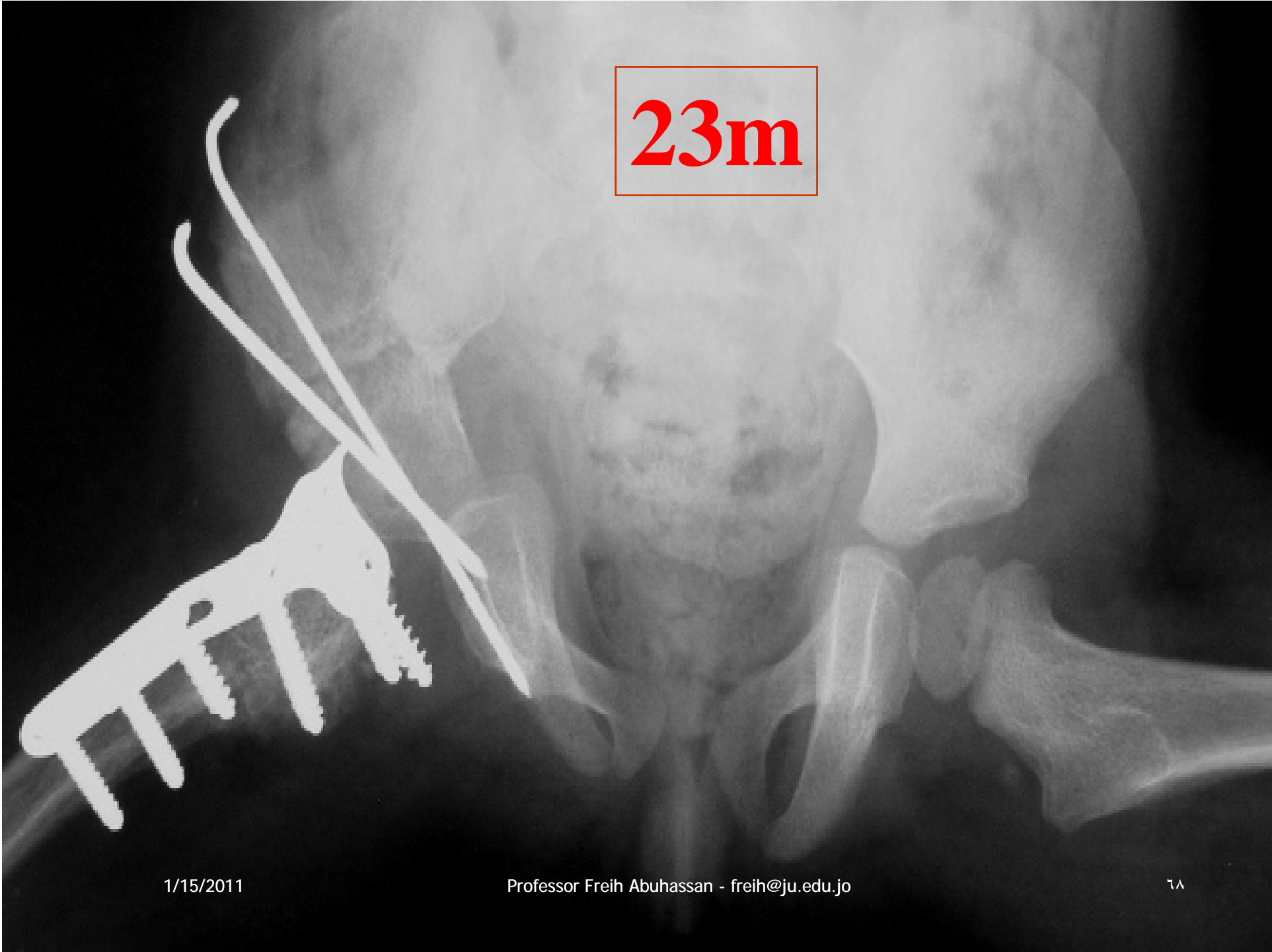
23m

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29-09-2002

23m





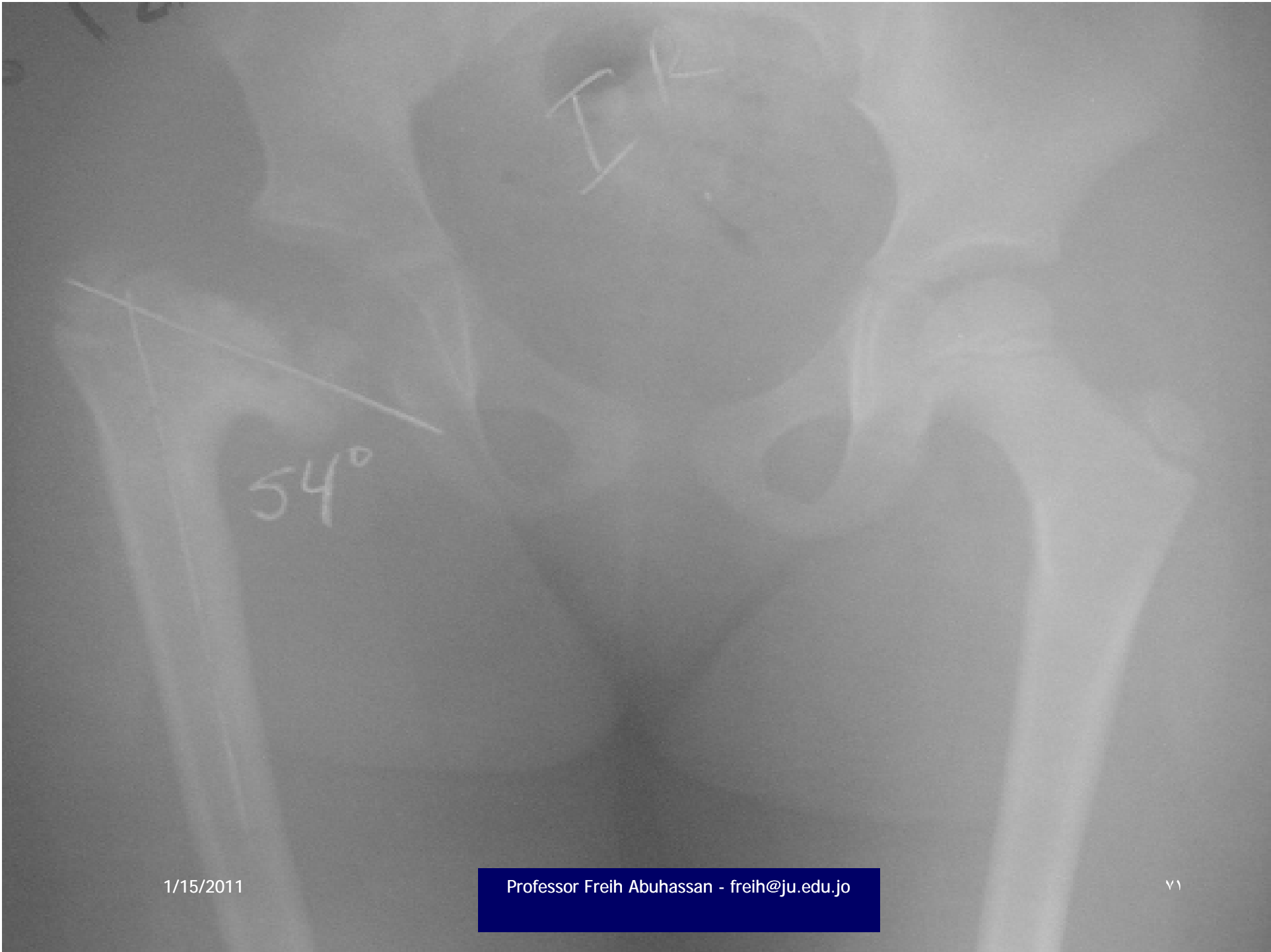
24m



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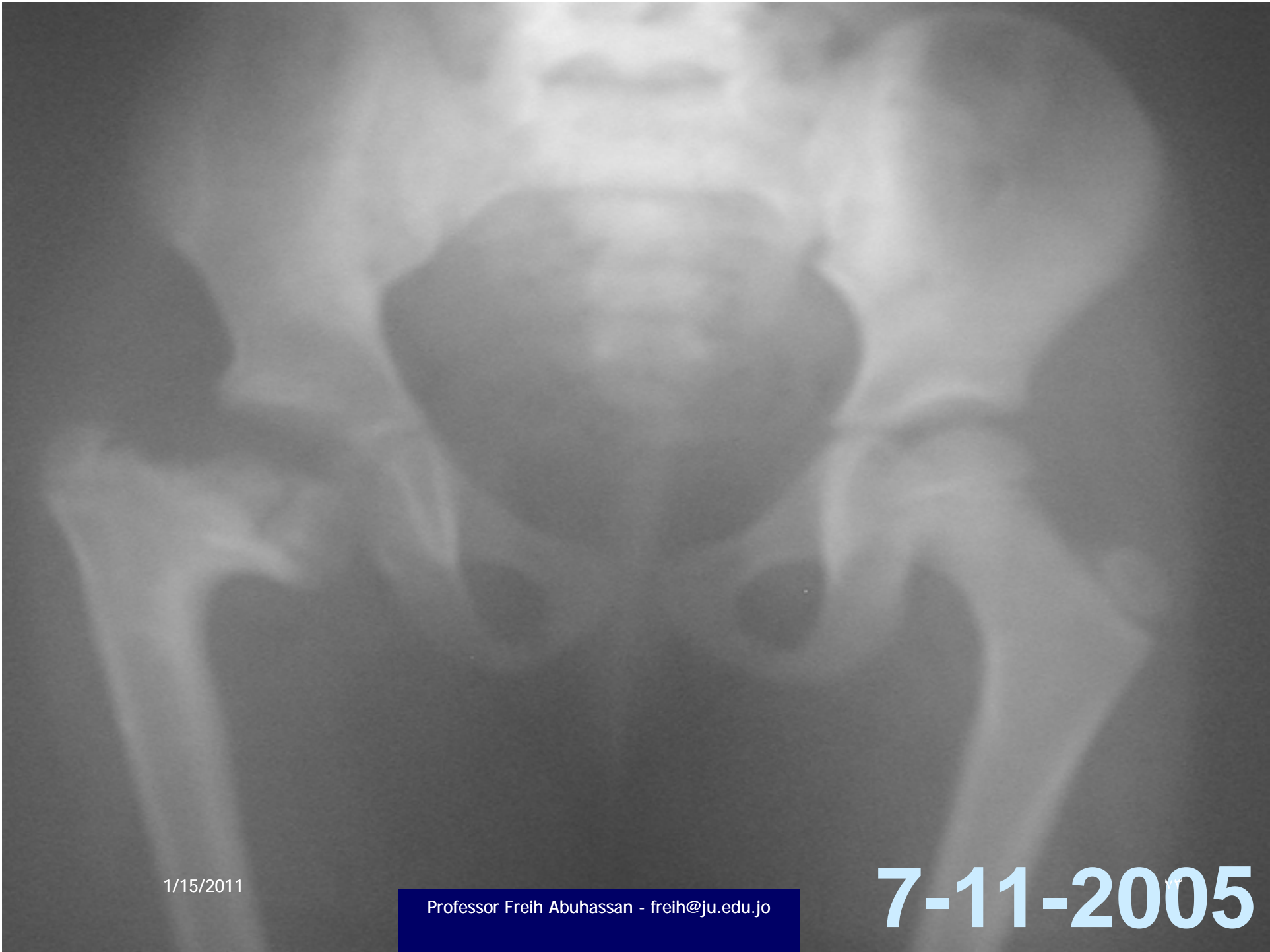
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5-04-2005



4th Surgeon

Needs valgus osteotomy + Ilizarov



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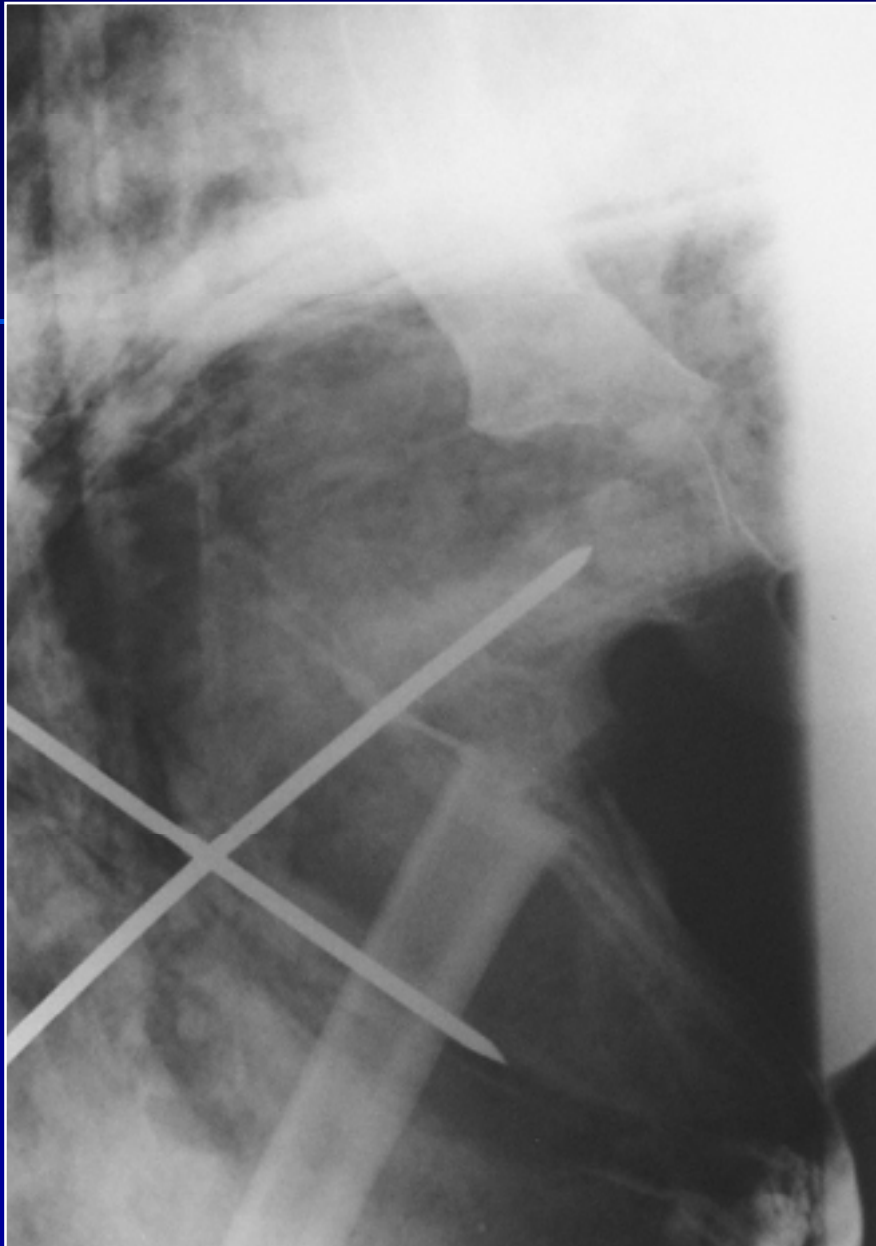
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7-11-2005

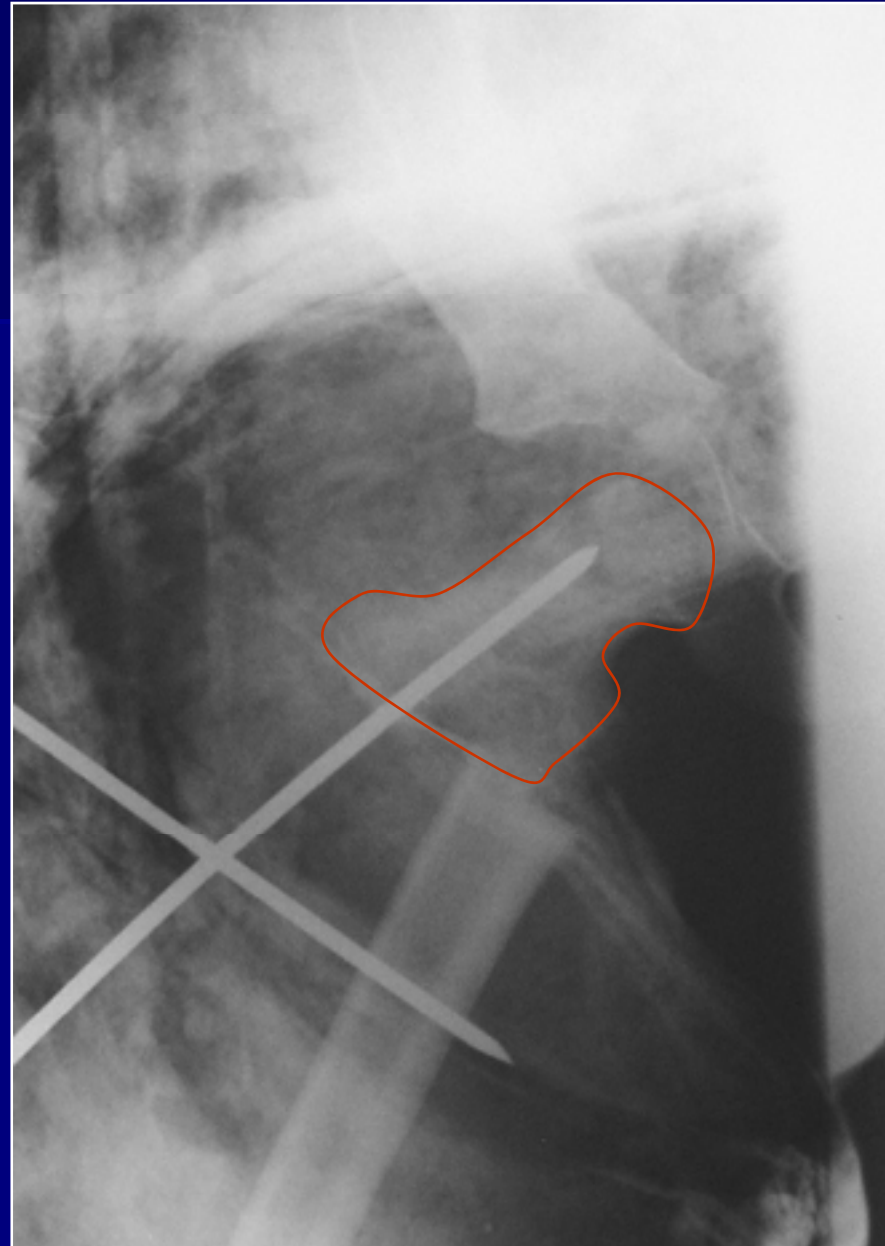
5th surgeon

Our technique

Percutaneous valgus osteotomy



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Yo



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Another case of poor management



Another case of poor management

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R

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Another case of poor management



cut 10/10
Sublabarbar
Cysto hys
for open red
Sulter or Duro

Another case of poor management



Another case of poor management





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