Les autres lésions fracturaires de l'ostéoporose

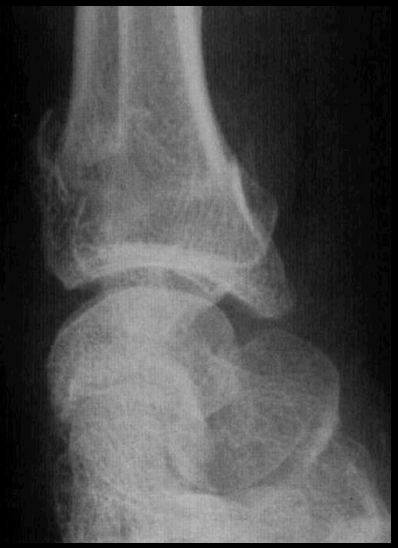
Les fractures ostéoporotiques sont des fractures spontanées ou survenant après une chute de sa hauteur

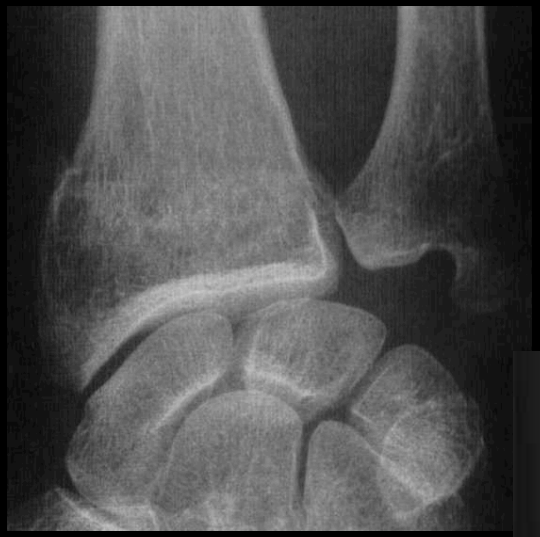
fractures de l'extrémité inférieure du radius (Pouteau-Colles)

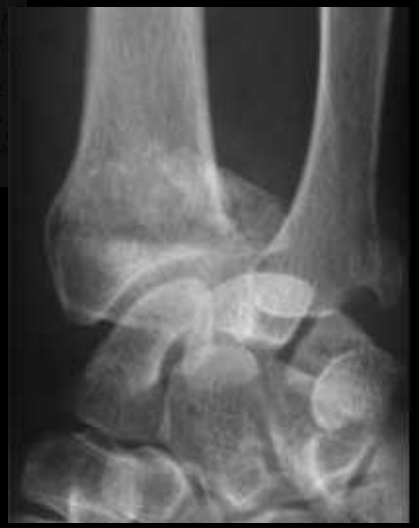
fractures du col fémoral

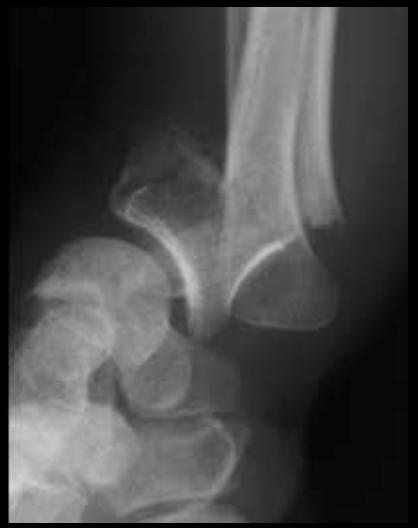
fractures par insuffisance osseuse ou de contrainte (stress fractures)
≠ fractures "de fatigue"

fractures du poignet



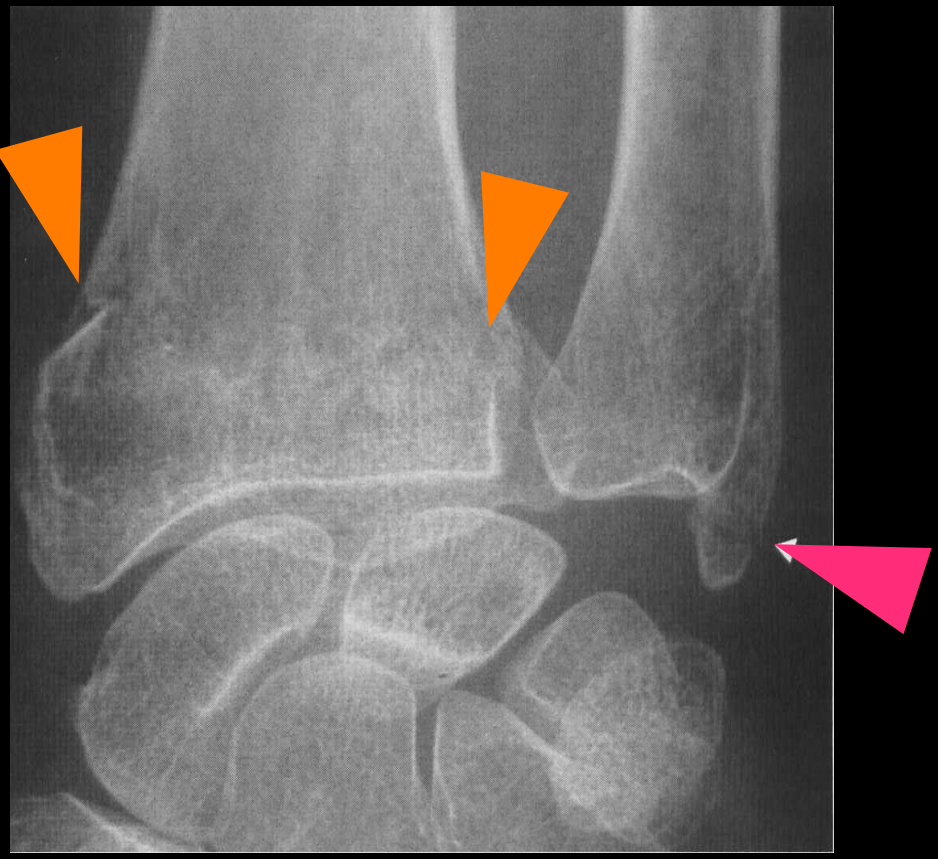






fracture de l'extrémité distale de l'avant-bras (de Pouteau-Colles)

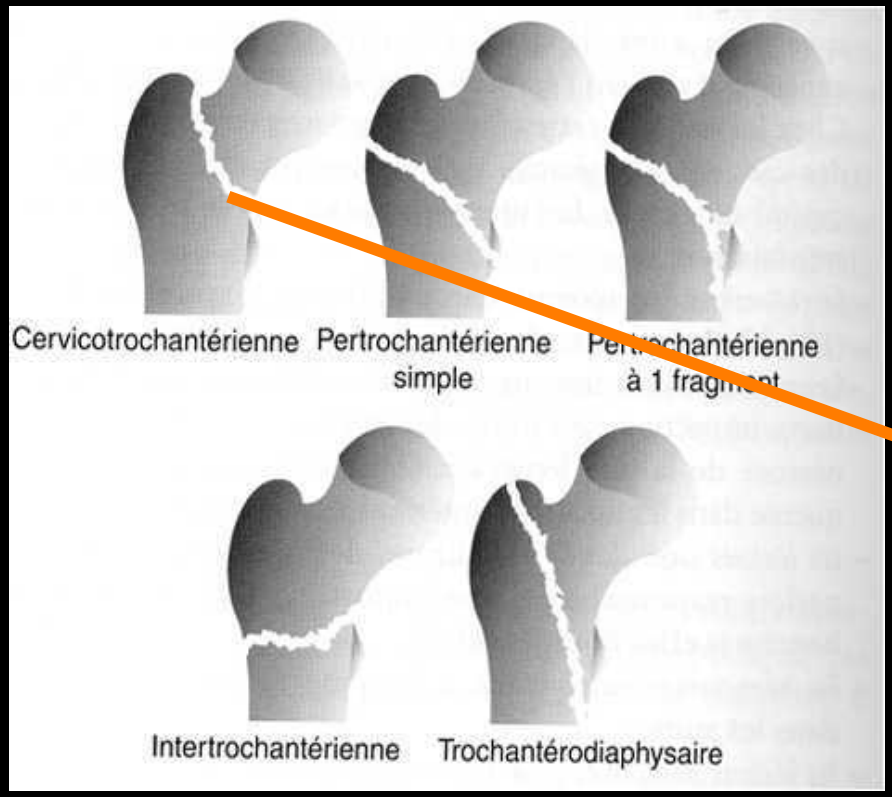
trait de fracture supra-articulaire et bascule postérieure et radiale du fragment distal



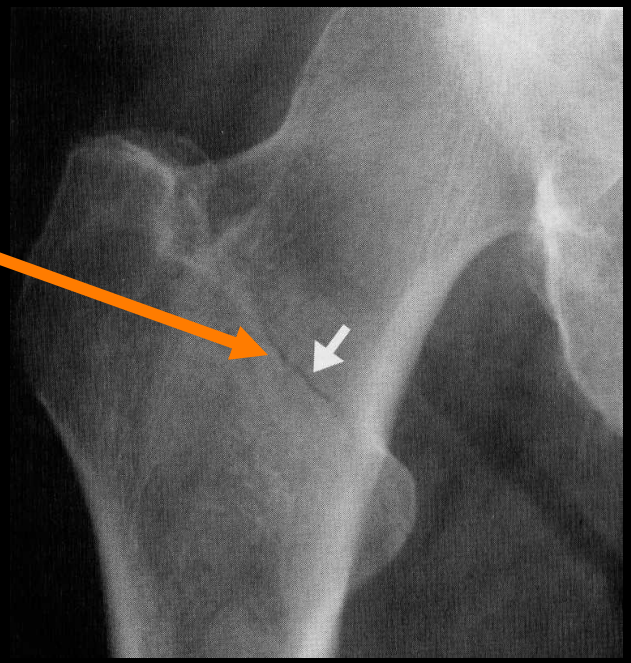
fracture de l'extrémité distale de l'avant-bras (de Gérard-Marchand)

association d'une fracture de Pouteau-Colles et d'une fracture du processus styloïde ulnaire

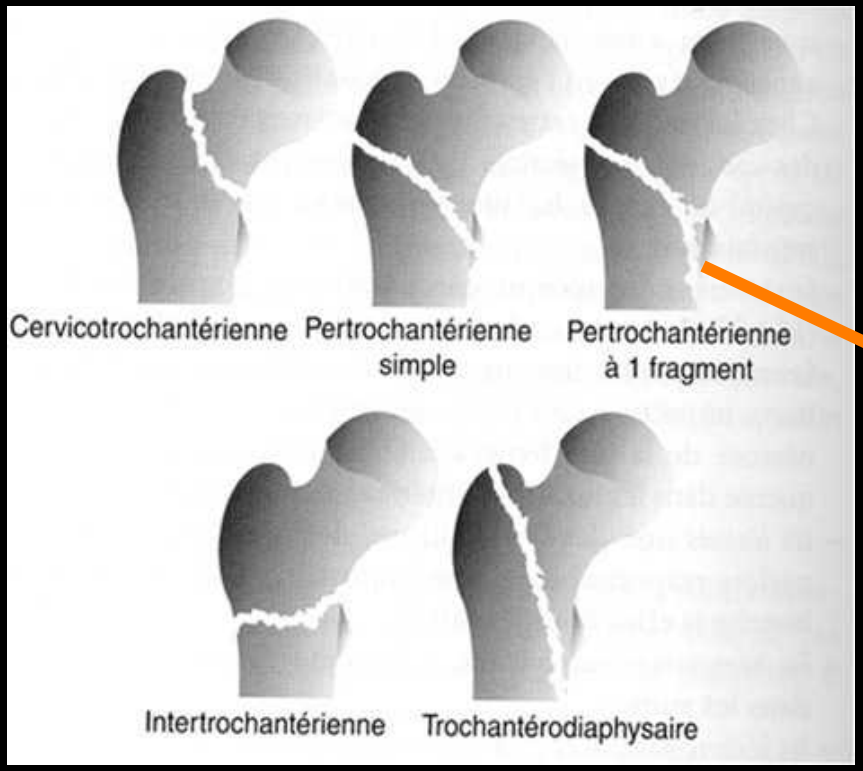
fractures de l'extrémité supérieure du fémur

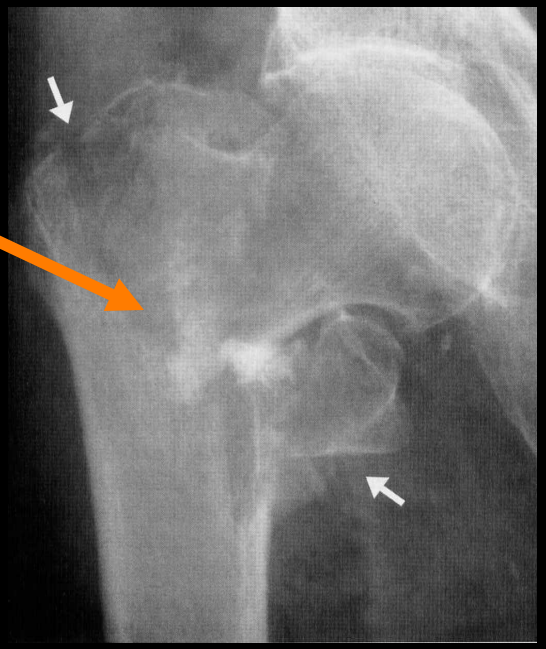


fractures trochantériennes

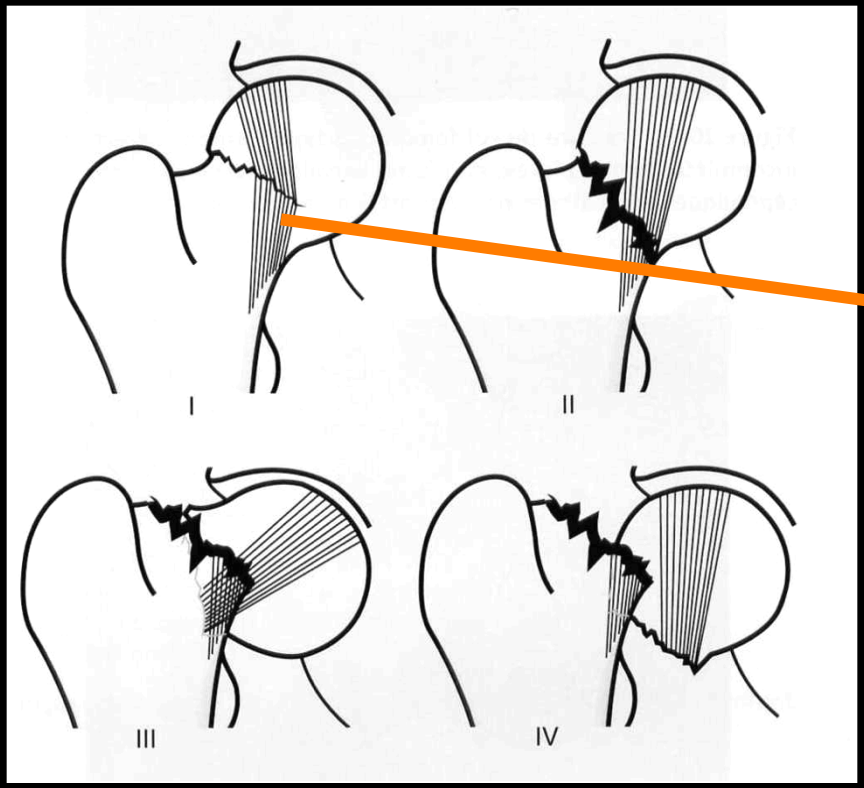


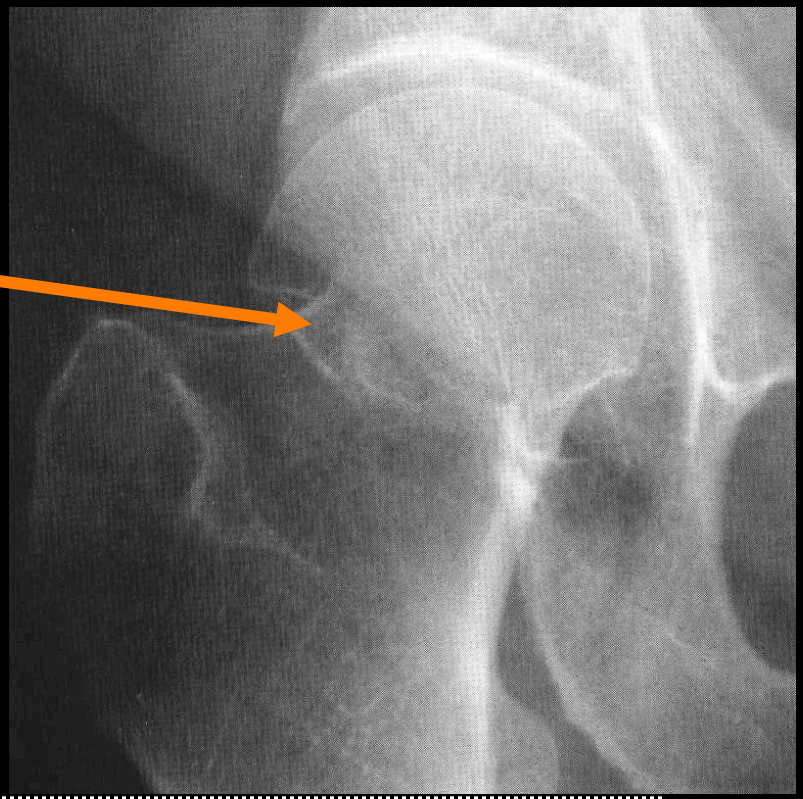
fractures trochantériennes





fractures cervicales





Garden I : incomplète, non déplacée, engrenée en valgus

Garden II : complète, non déplacée

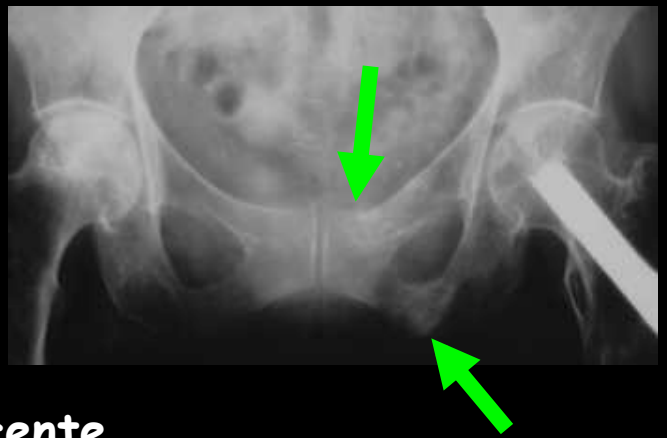
Garden III : complète, engrenée en varus

Garden IV : complète, désolidarisée

fractures par insuffisance osseuse de la ceinture pelvienne

causes extrêmement fréquentes de douleurs lombaires basses et fessières chez les femmes âgées

souvent chute mineure au départ



facteurs favorisants :

prothèse de hanche
PR
obésité , corticothérapie
immobilisation temporaire récente
irradiation pelvienne

suivent les lignes de transmission des forces sur la ceinture pelvienne en station verticale

zone d'ostéocondensation linéaire perpendiculaire aux travées portantes

Principales localisations des FIO de la ceinture pelvienne

fracture du sacrum en H

double verticale des ailerons sacrés
\+ transversale à hauteur de S1S2

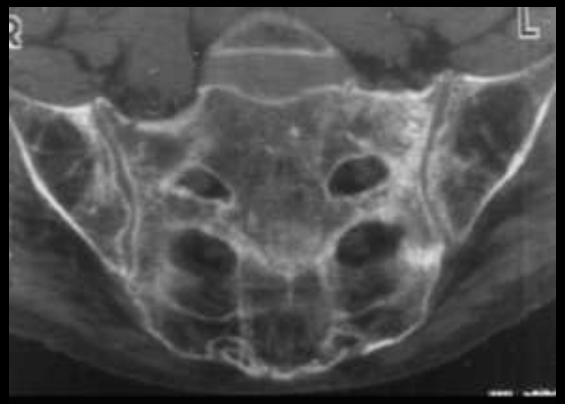
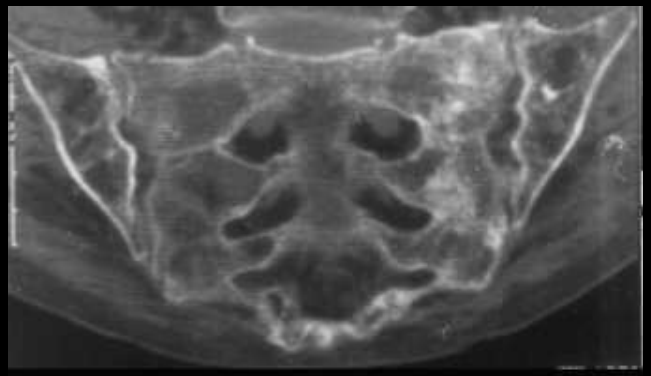
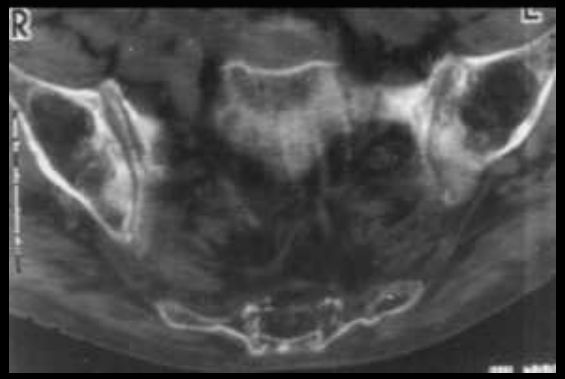
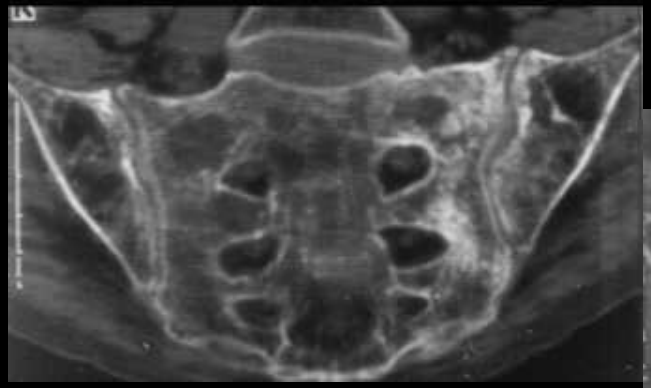
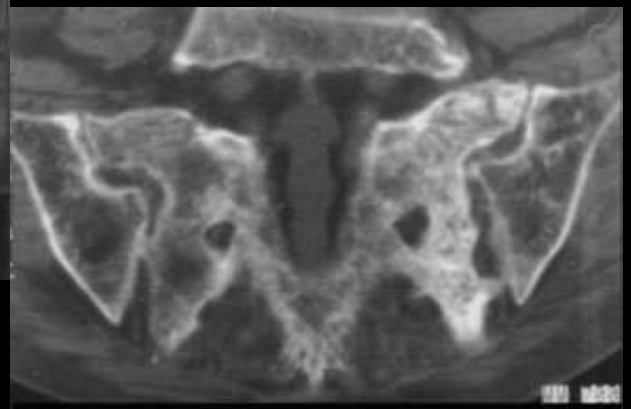
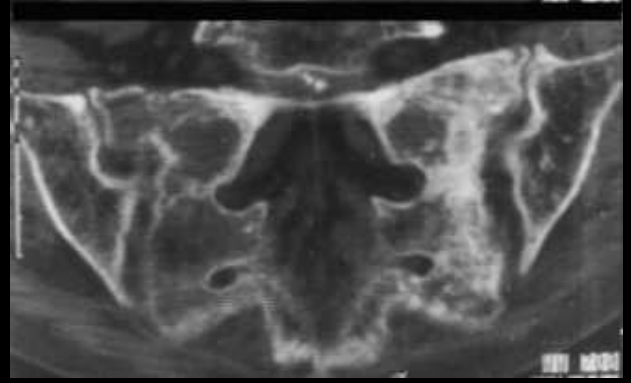
fractures des branches pubiennes et para symphysaires

FIO du col fémoral

FIO plus rares

sus cotyloïdiennes
aile iliaque

souvent associées ;
l'anneau pelvien est rigide et "indéformable"

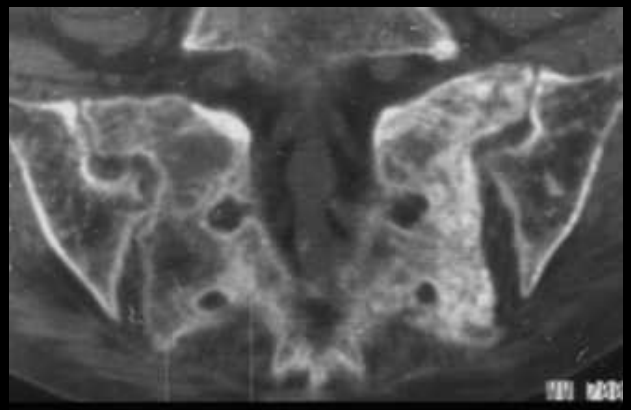
zones d'ostéosclérose linéaires

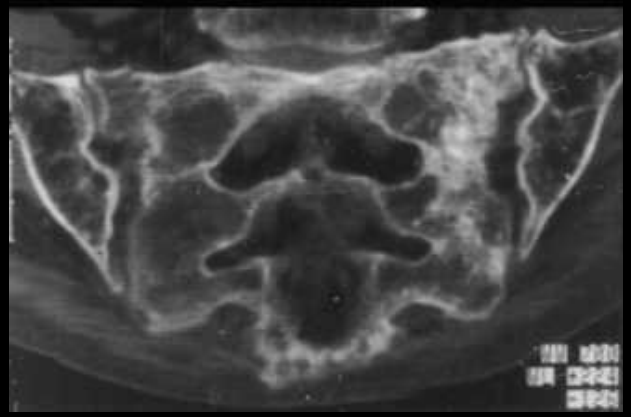
élargissement de l'interligne articulaire

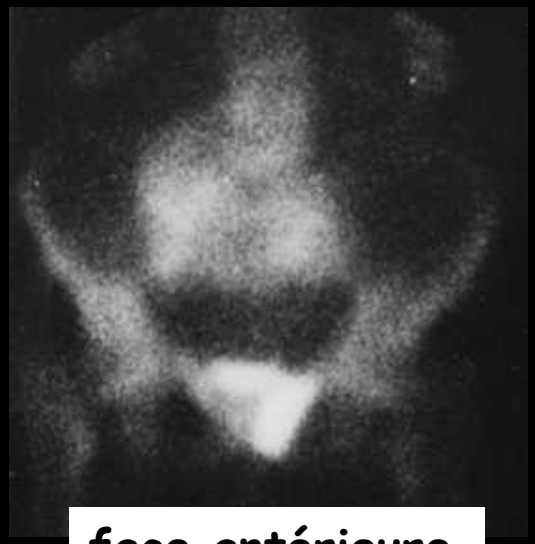
impaction latérale
l'aileron sacré

interruptions des corticales

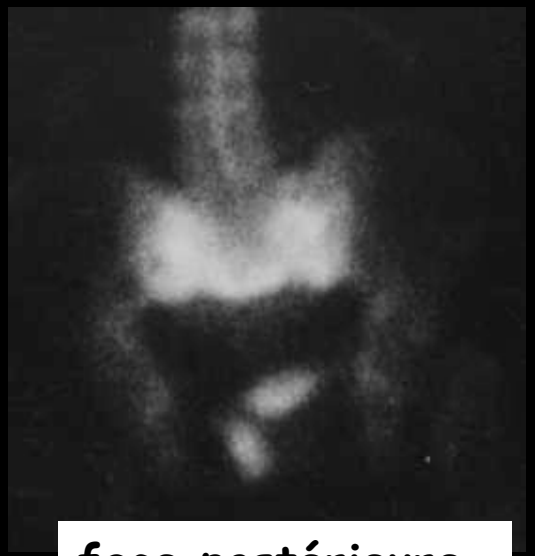
Mme LAU. 1



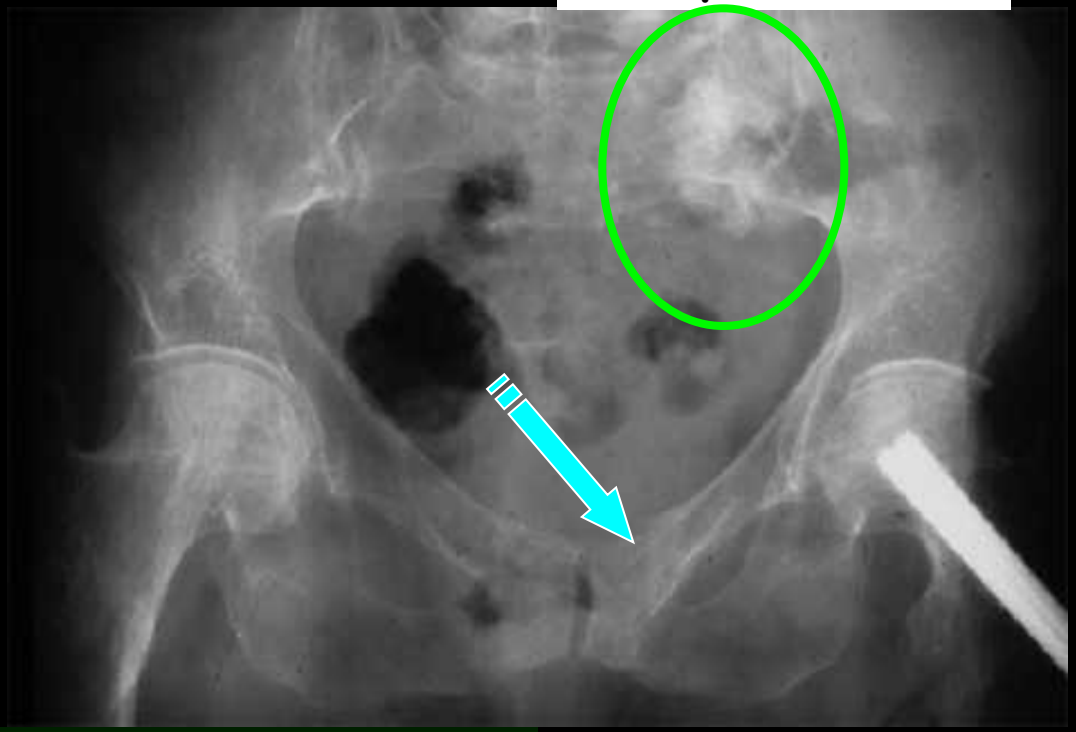




face antérieure



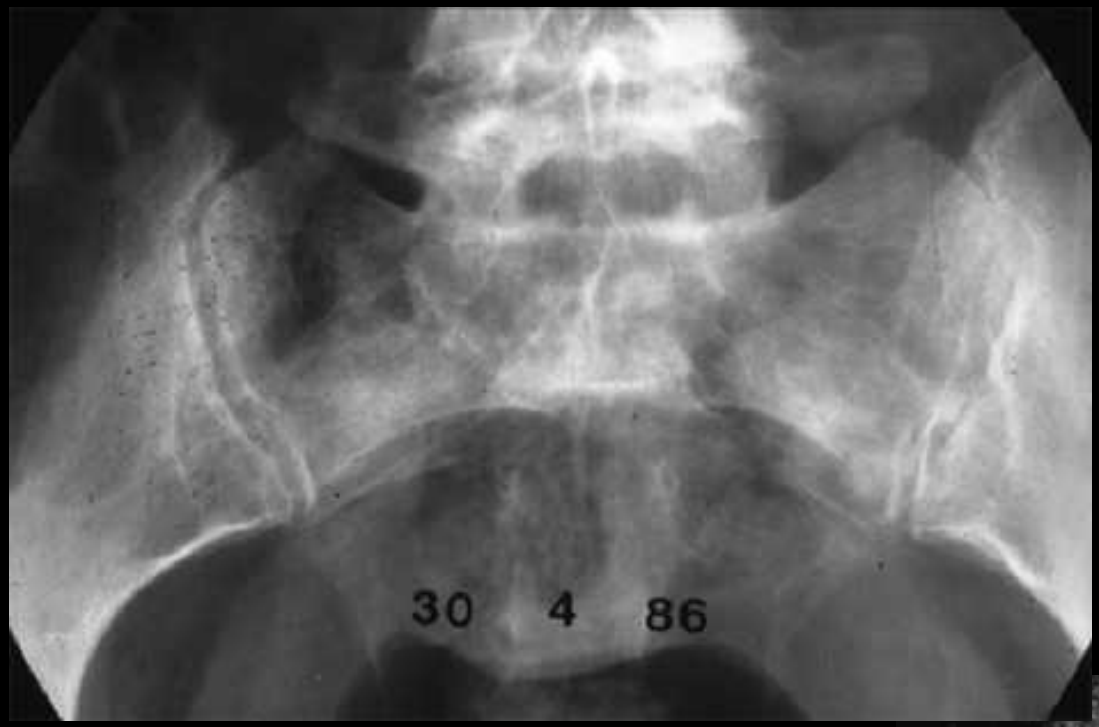
face postérieure

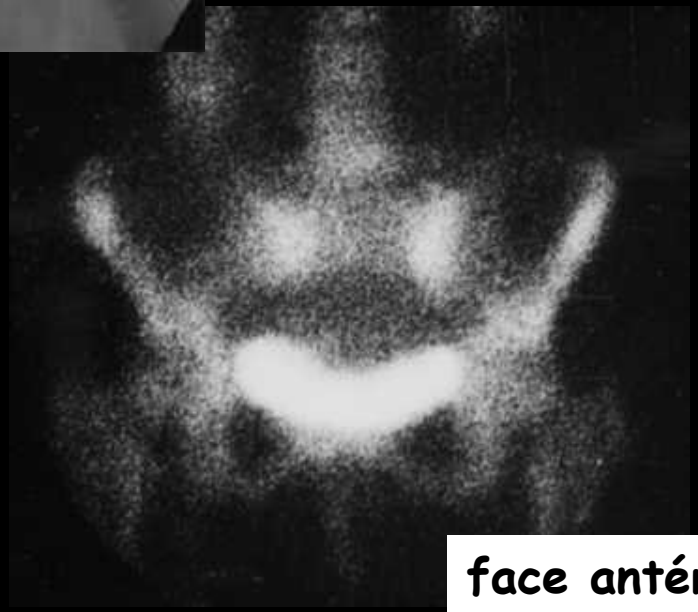


combien de FIO

Mme LAU. 2

FIO 2 hémi sacrums + branche ilio pubienne gauche





Mme LHO . 1

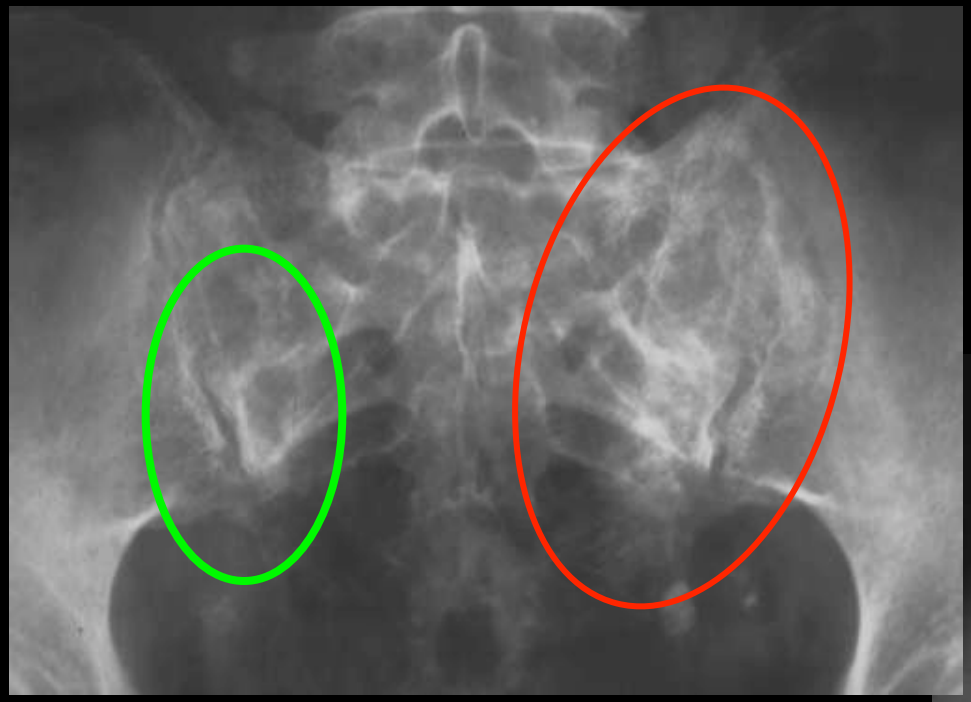
face antérieure

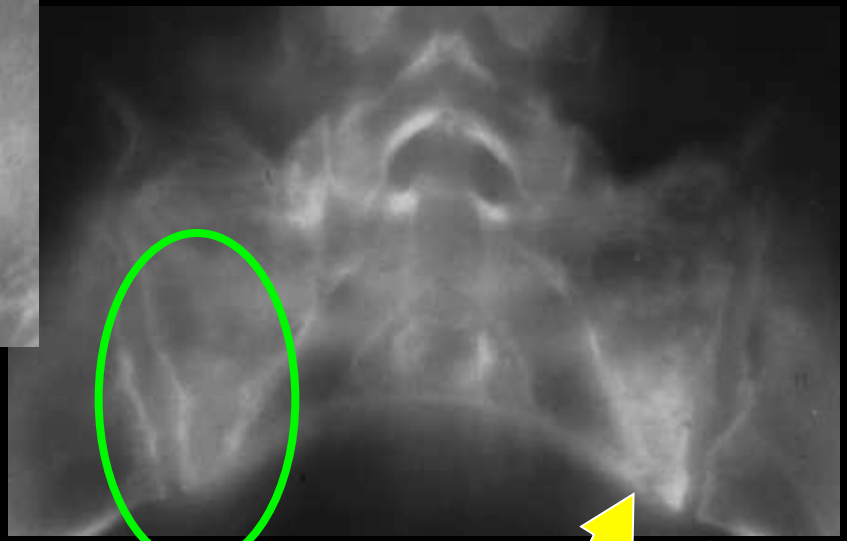
face postérieure

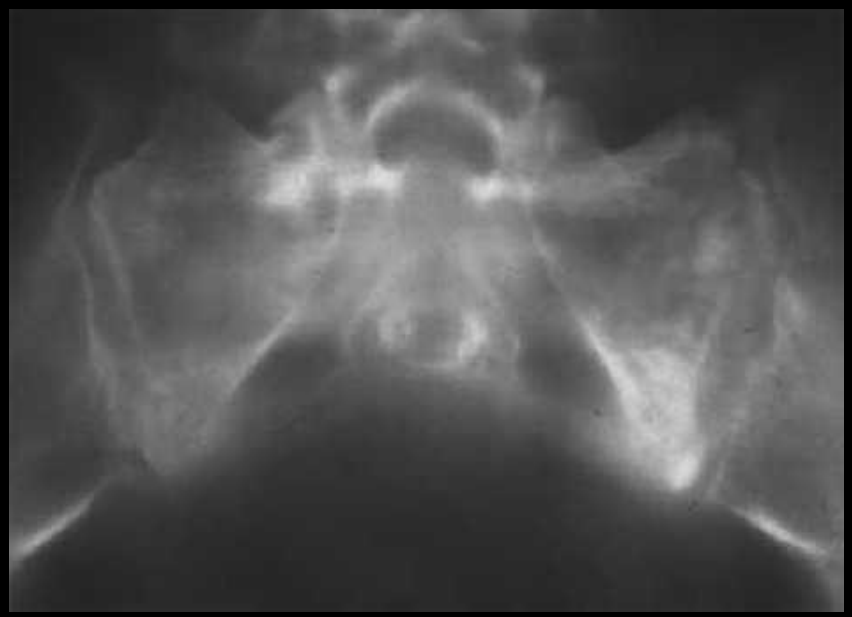
face antérieure

Mme LHO .. 2.

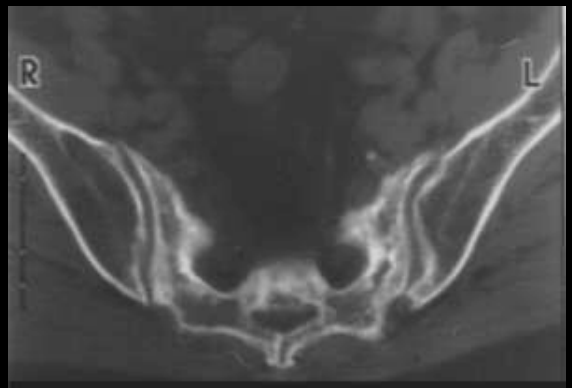
FIO 2 hémi sacrums

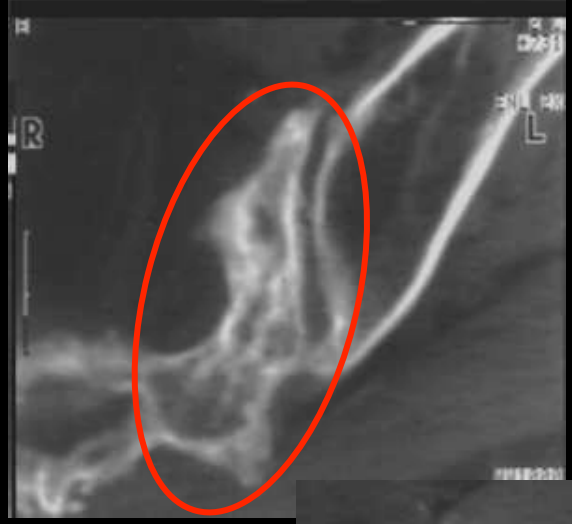


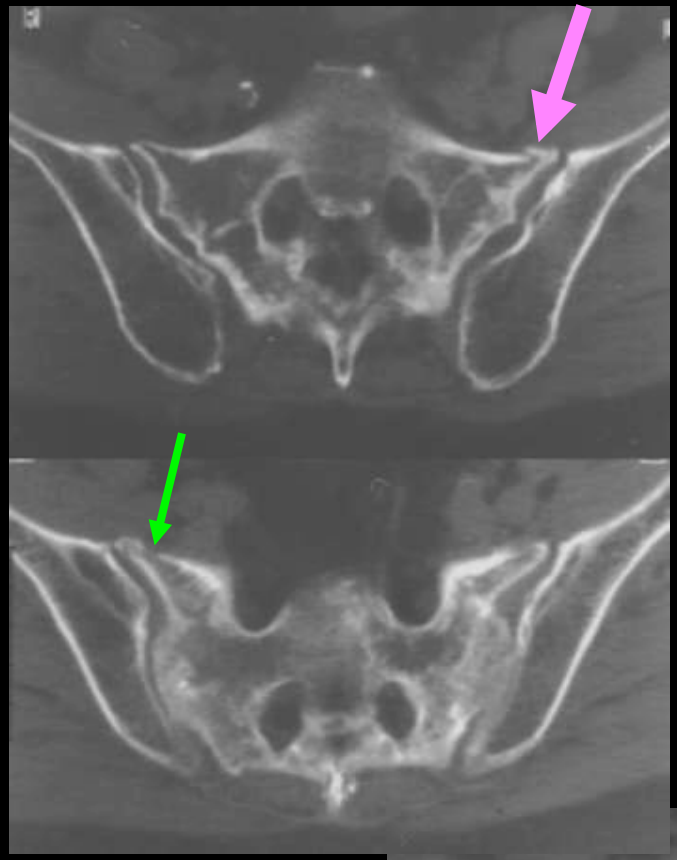




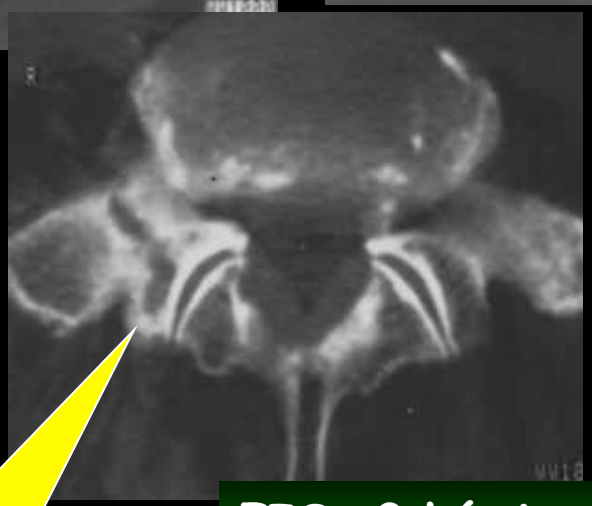
Mme BAT…1.

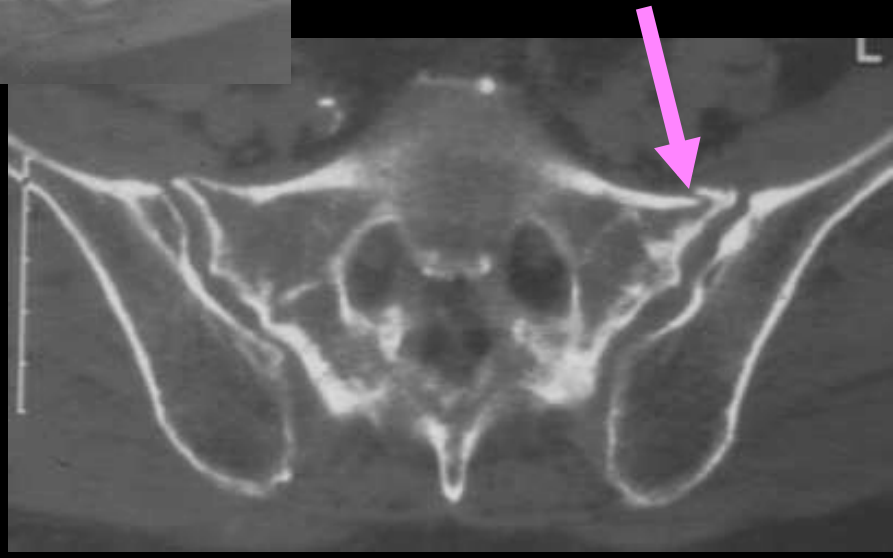




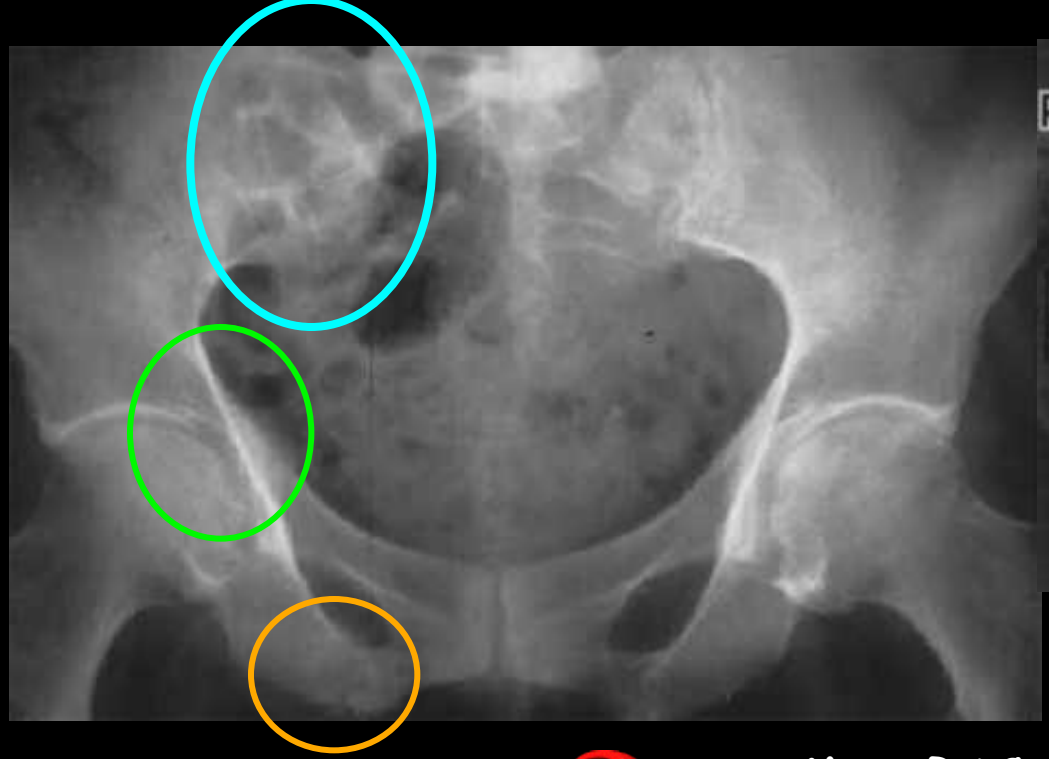


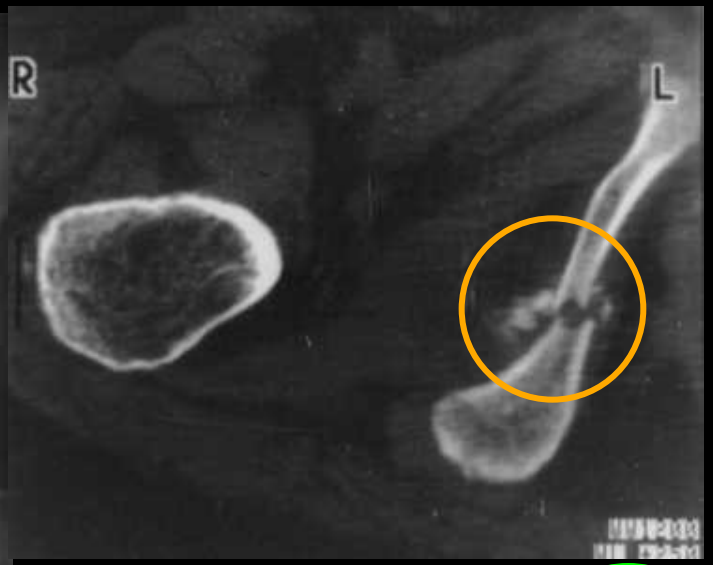
Mme BAT… 2.





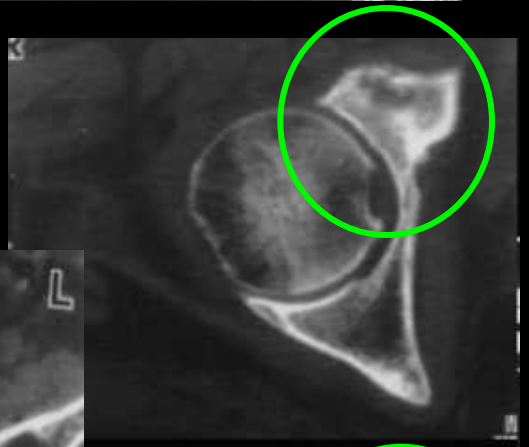
FIO 2 hémi sacrum + isthme droit L5

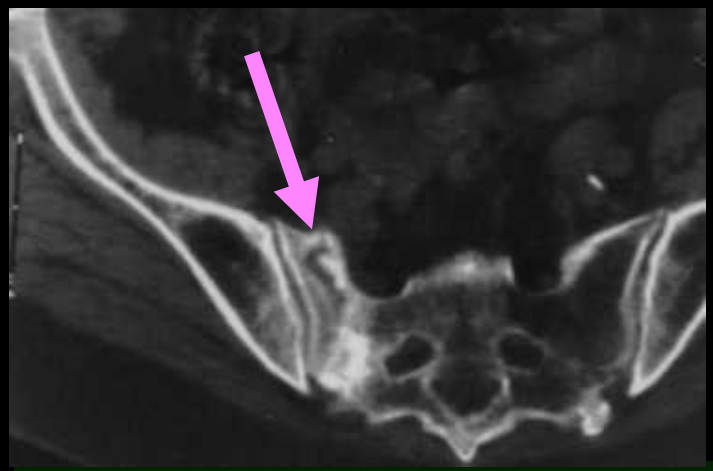


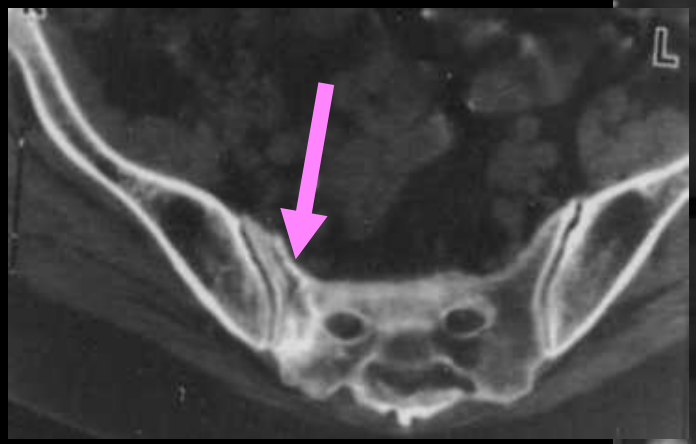


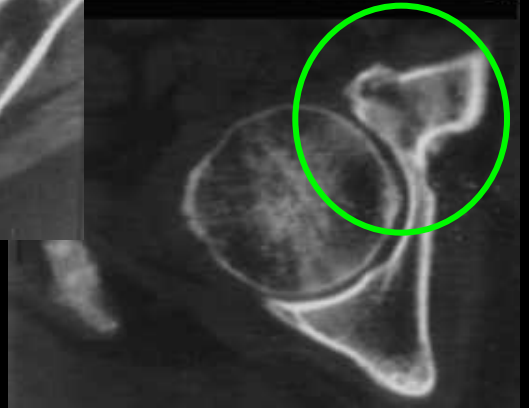
combien de FIO ?

Mme RAC…

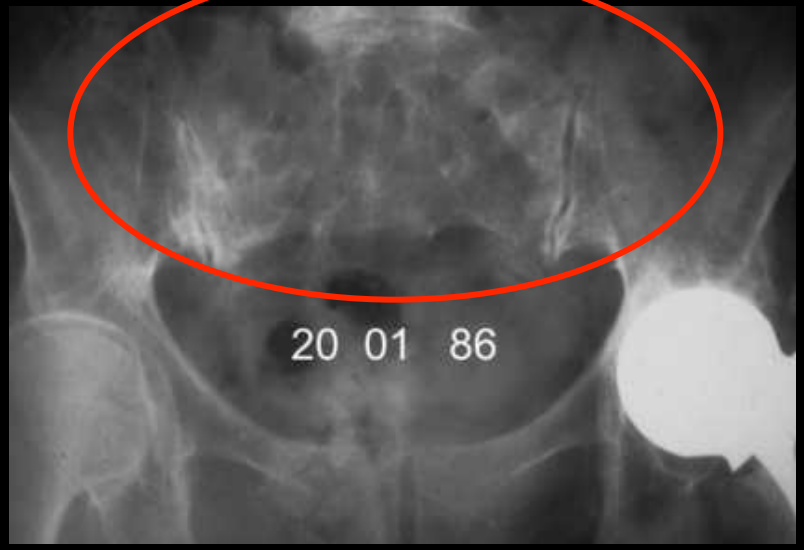


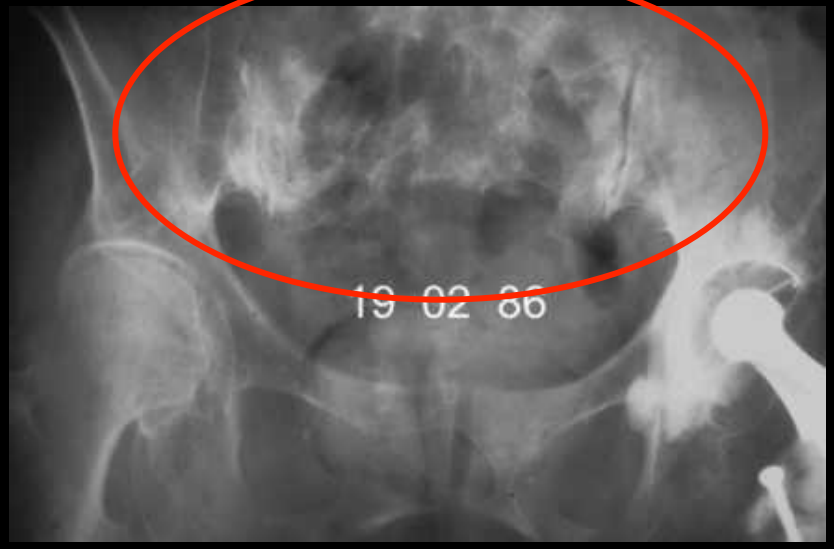


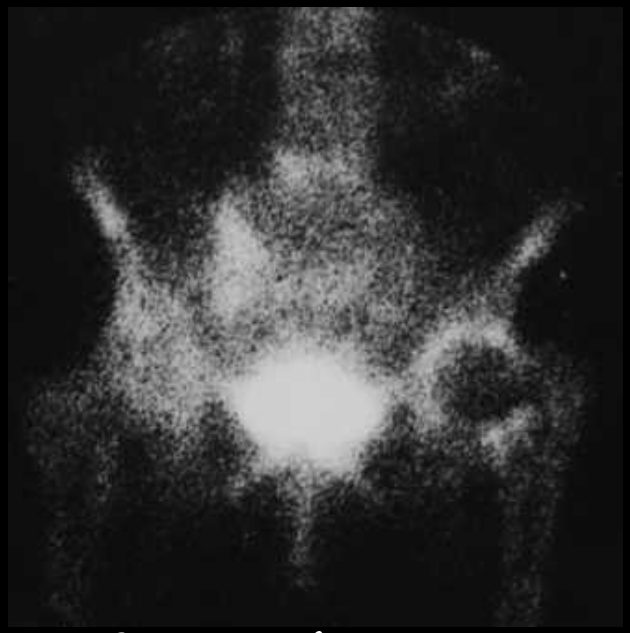




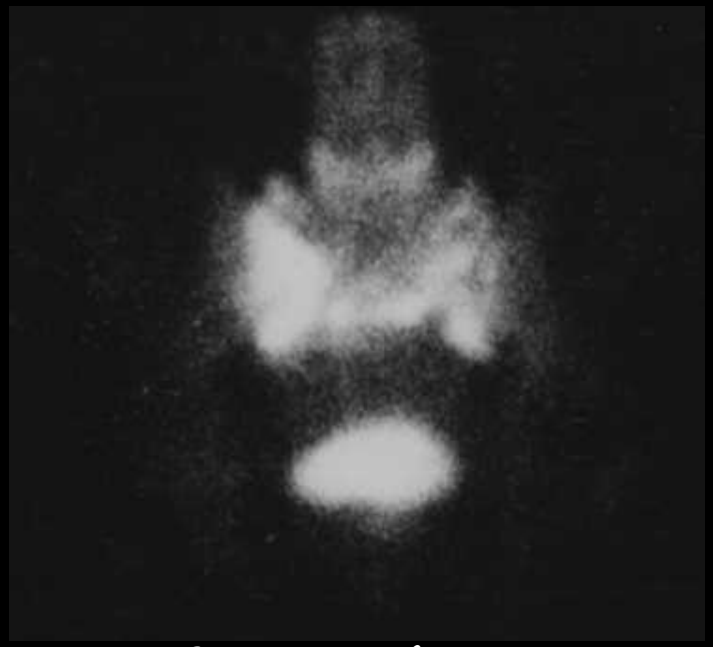
FIO branches pubiennes + hémi sacrum droit







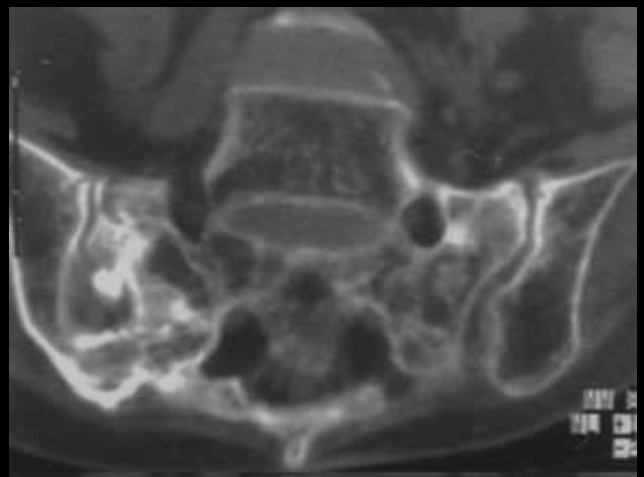
face antérieure

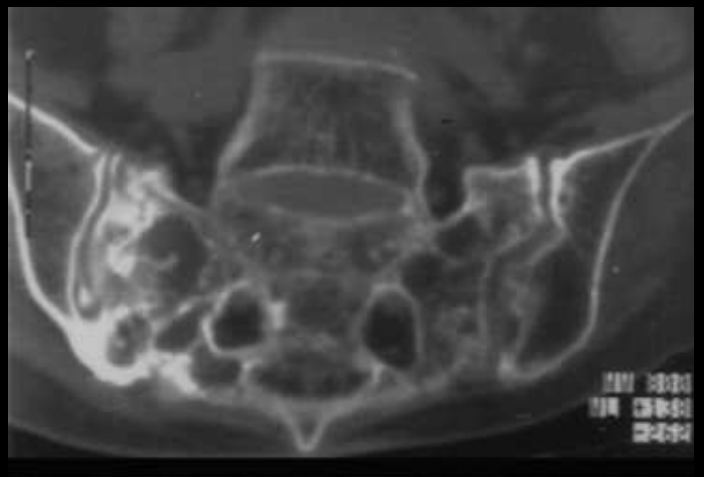


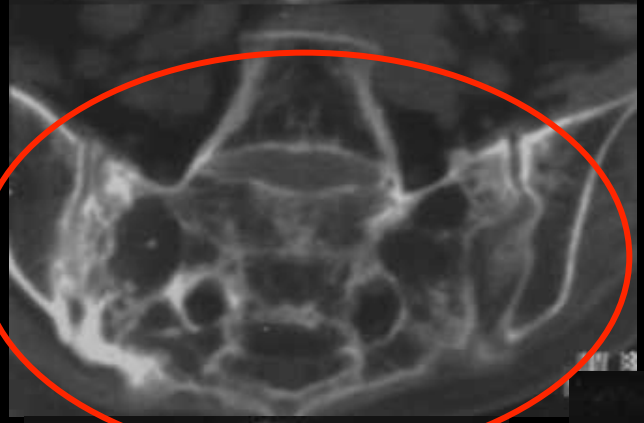
face postérieure

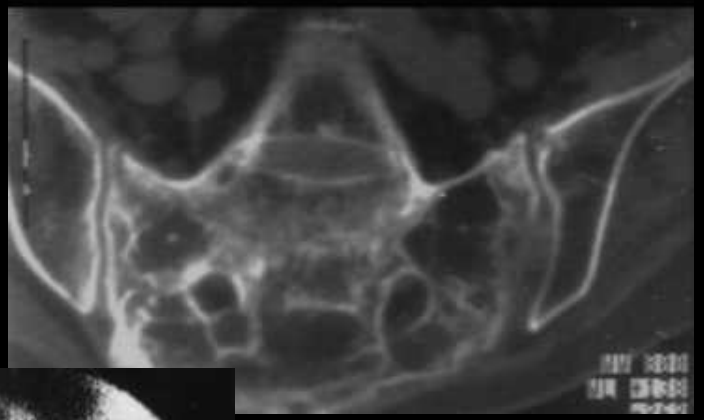
Honda sign ! !

Mme EBE ..1

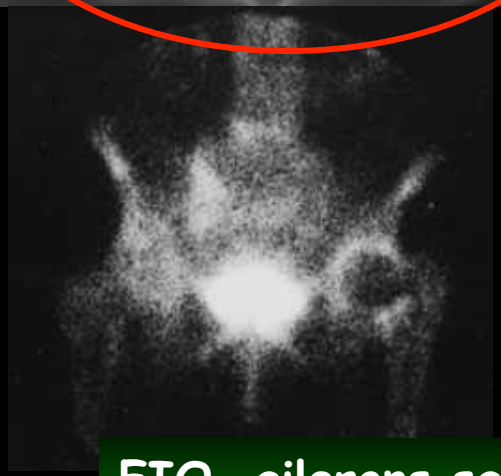


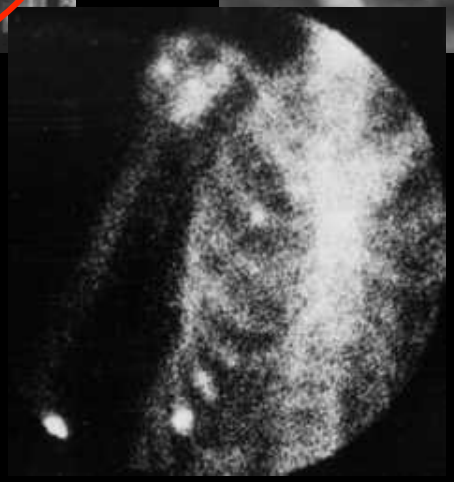


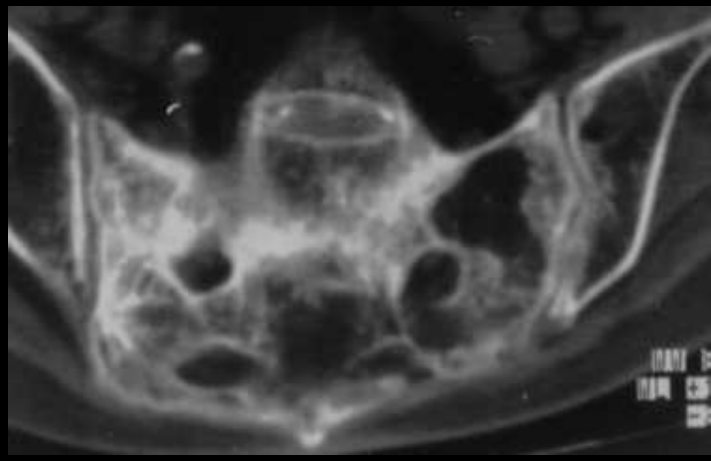




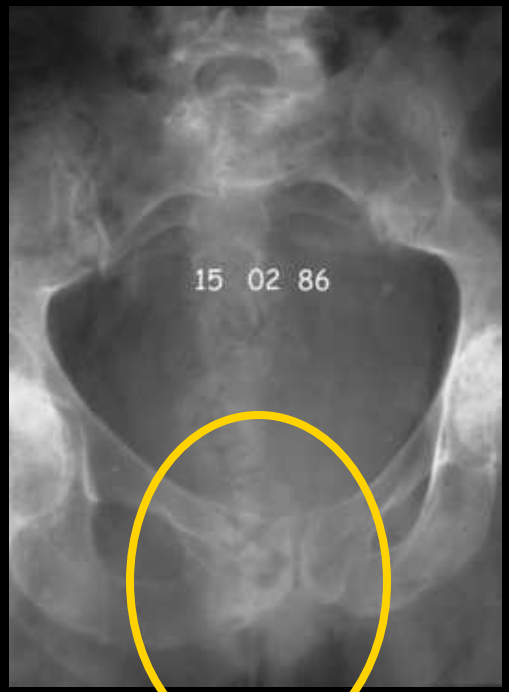
Mme EBE ..2

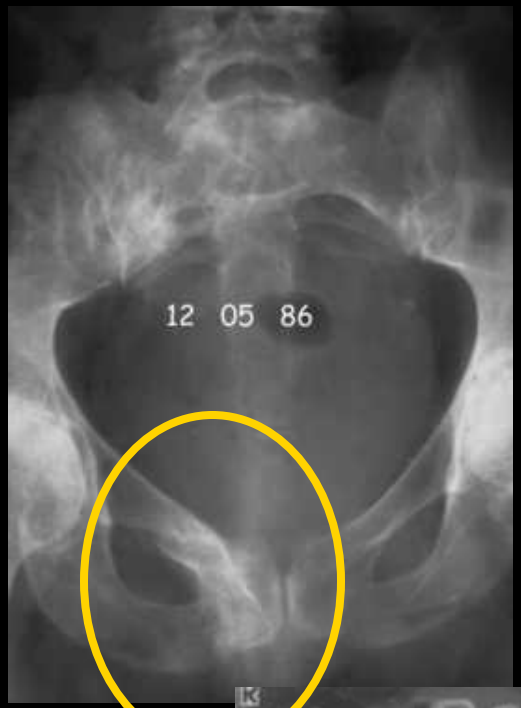


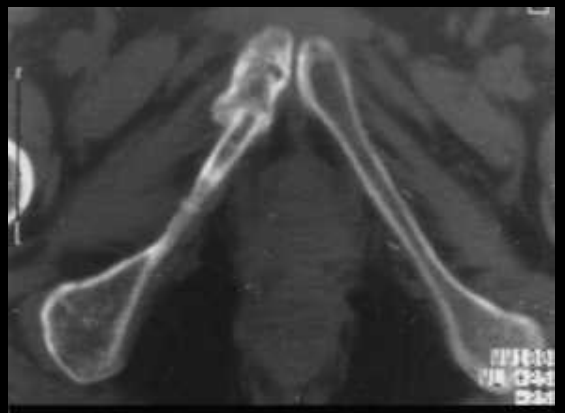


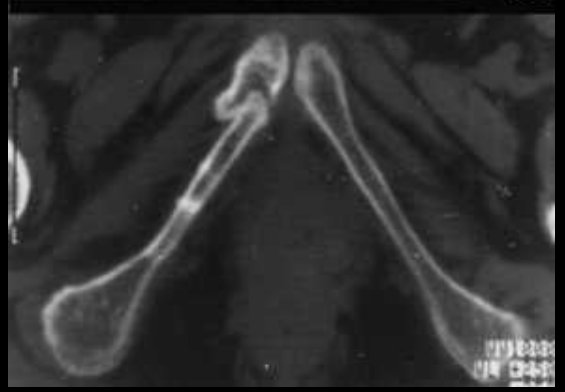


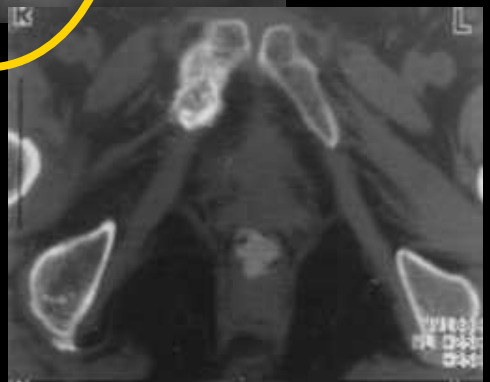
FIO ailerons sacrés + L + côtes droites

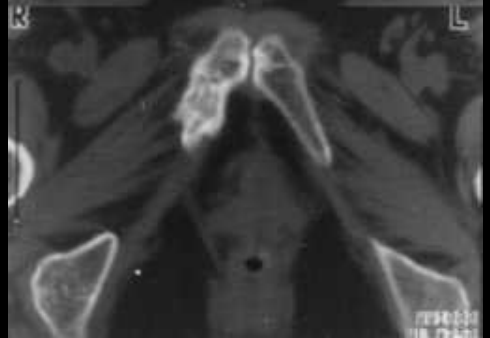




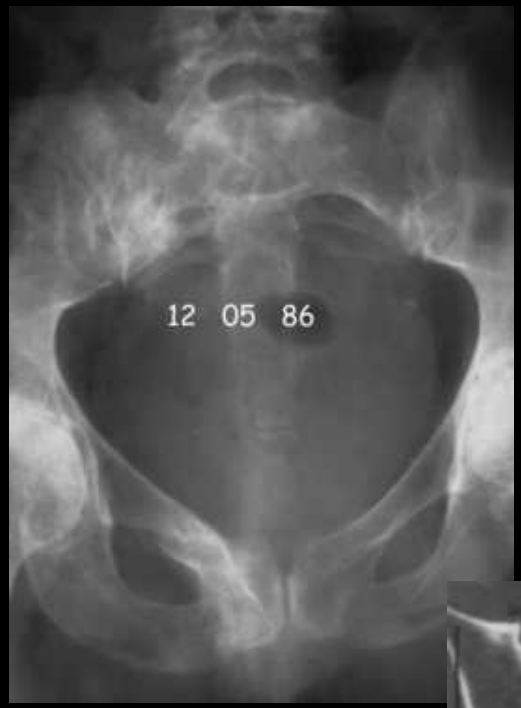


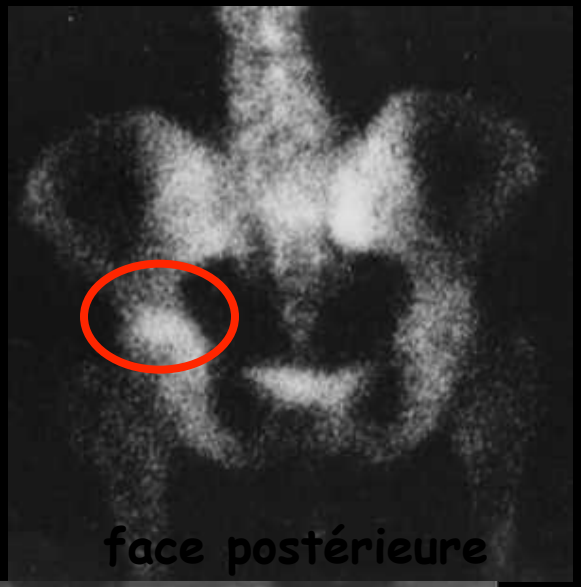


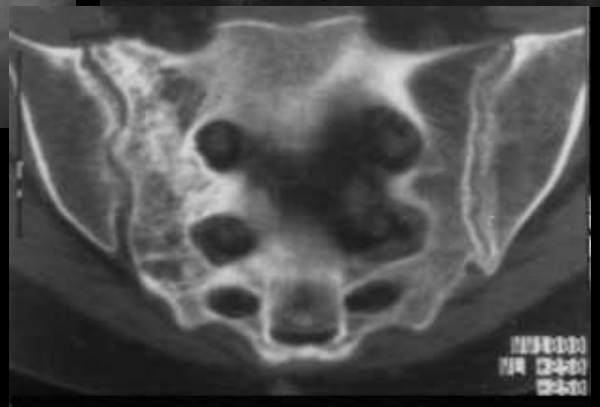


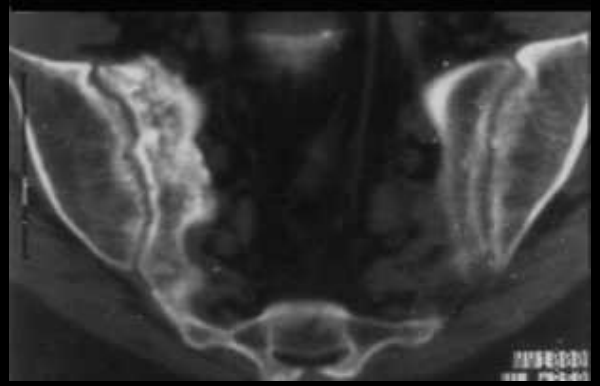


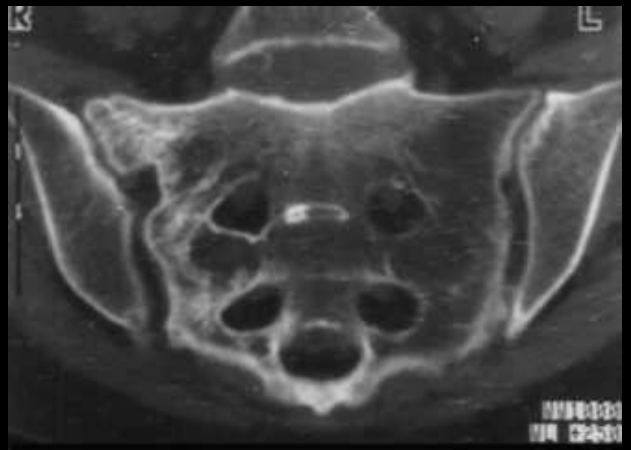
Mme ROZ ..1

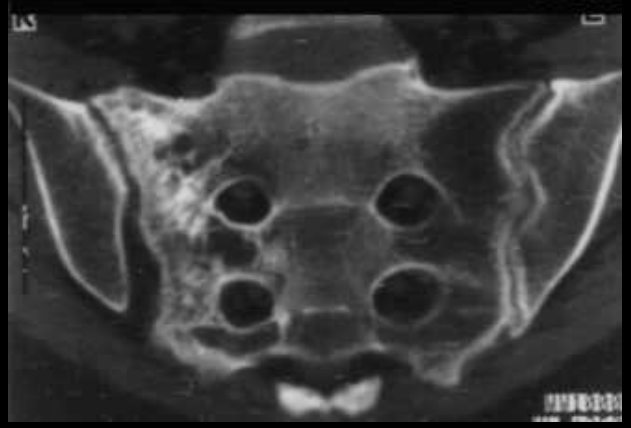




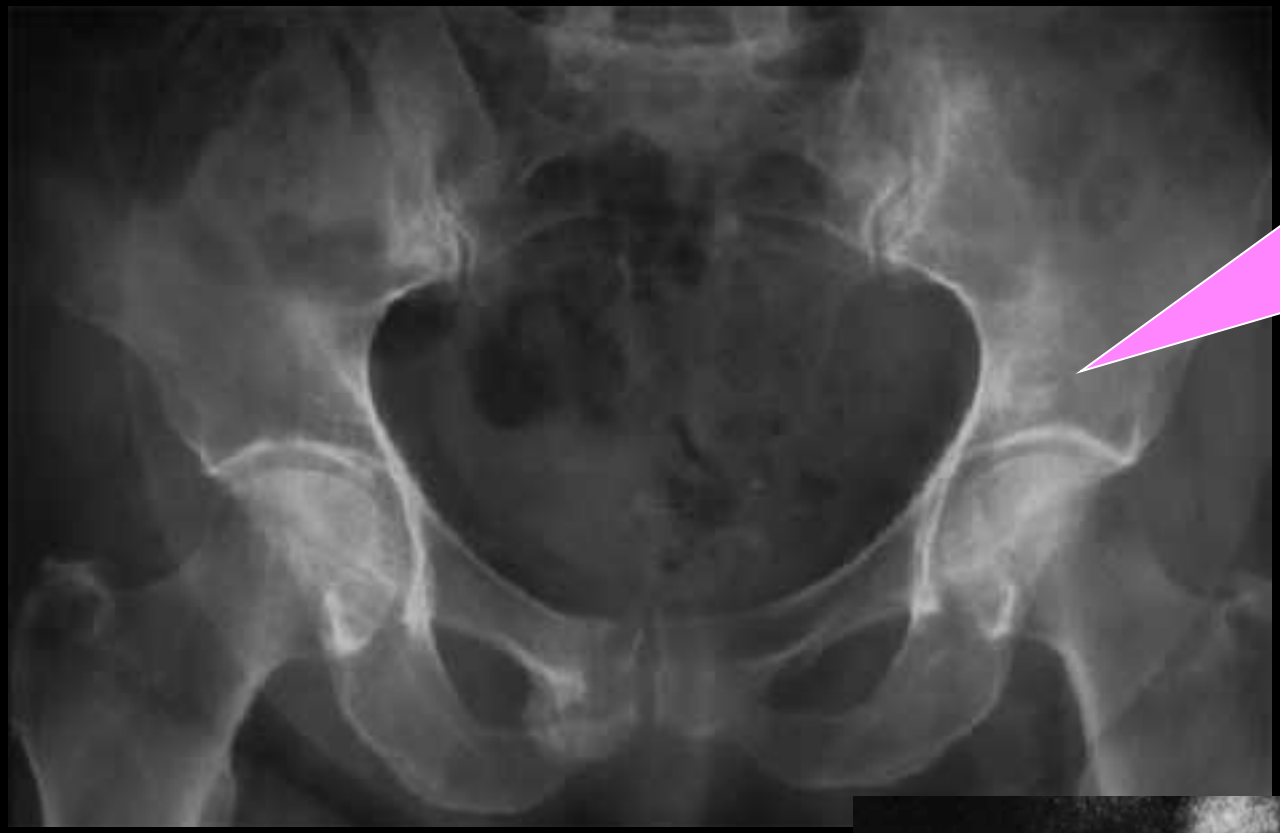




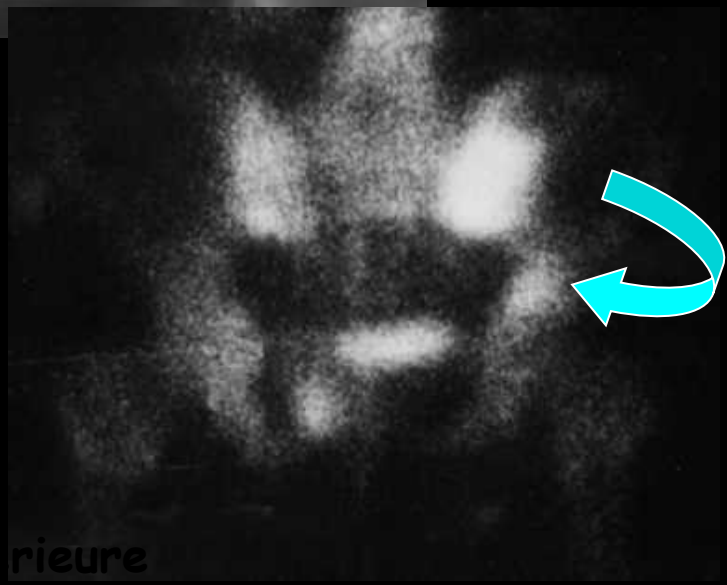




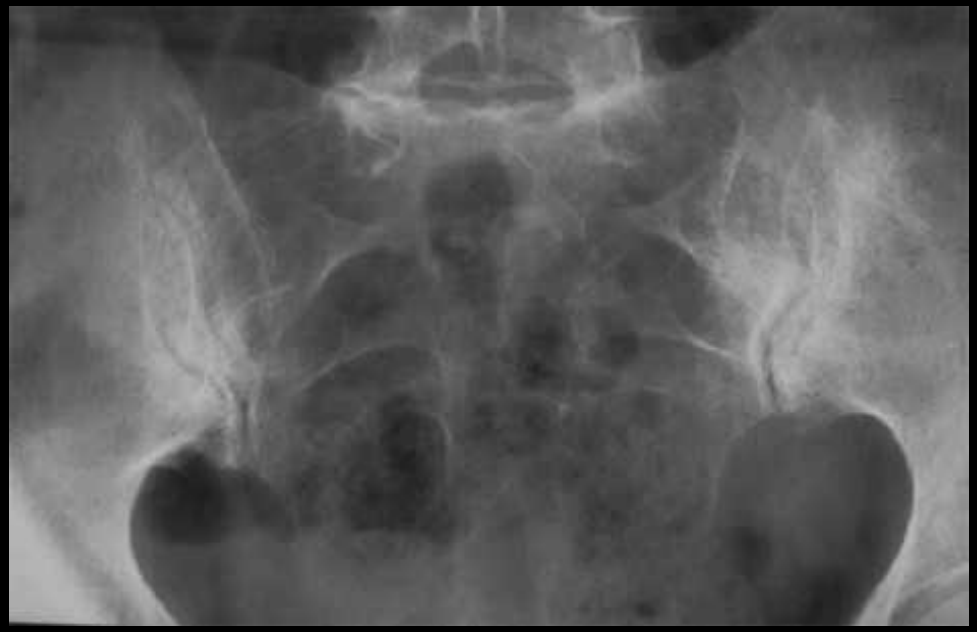
FIO parasymphysaire droite + hémi sacrum droit + sus cotyloïdienne droite

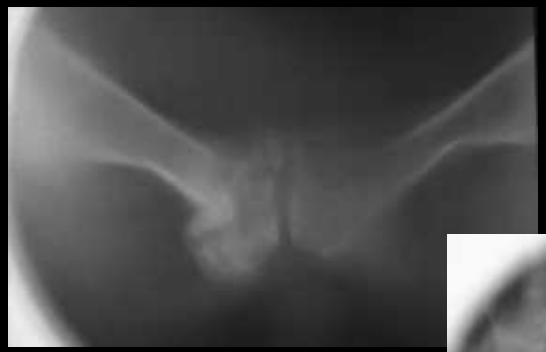


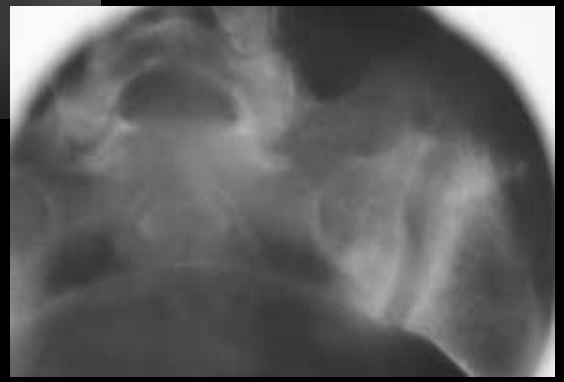
combien de FIO



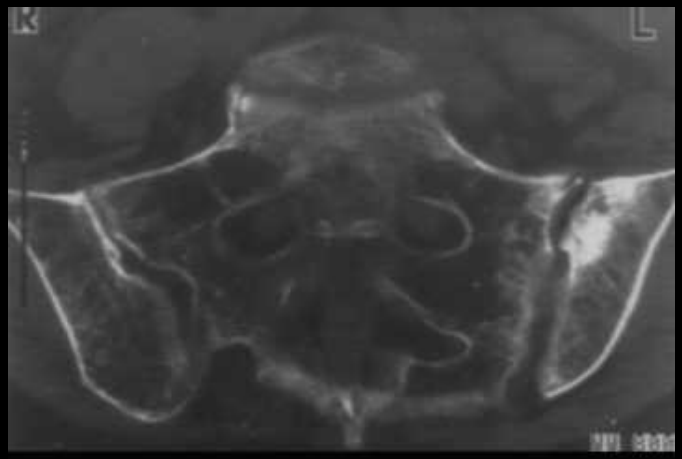
Mme FAB ..1

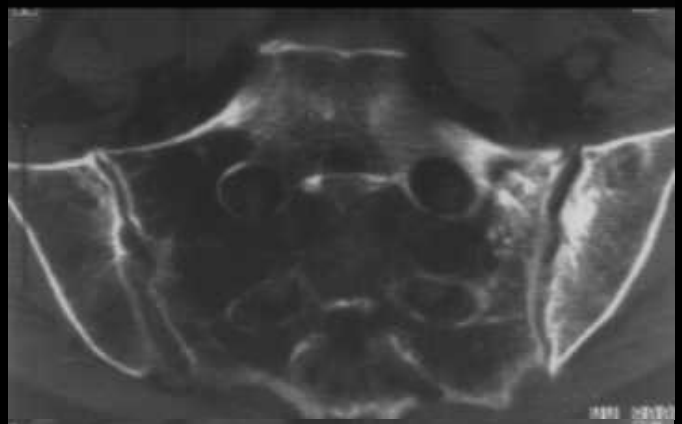


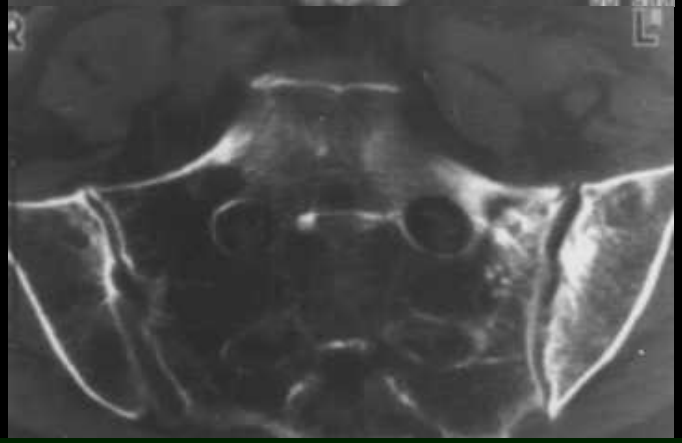




Mme FAB ..2

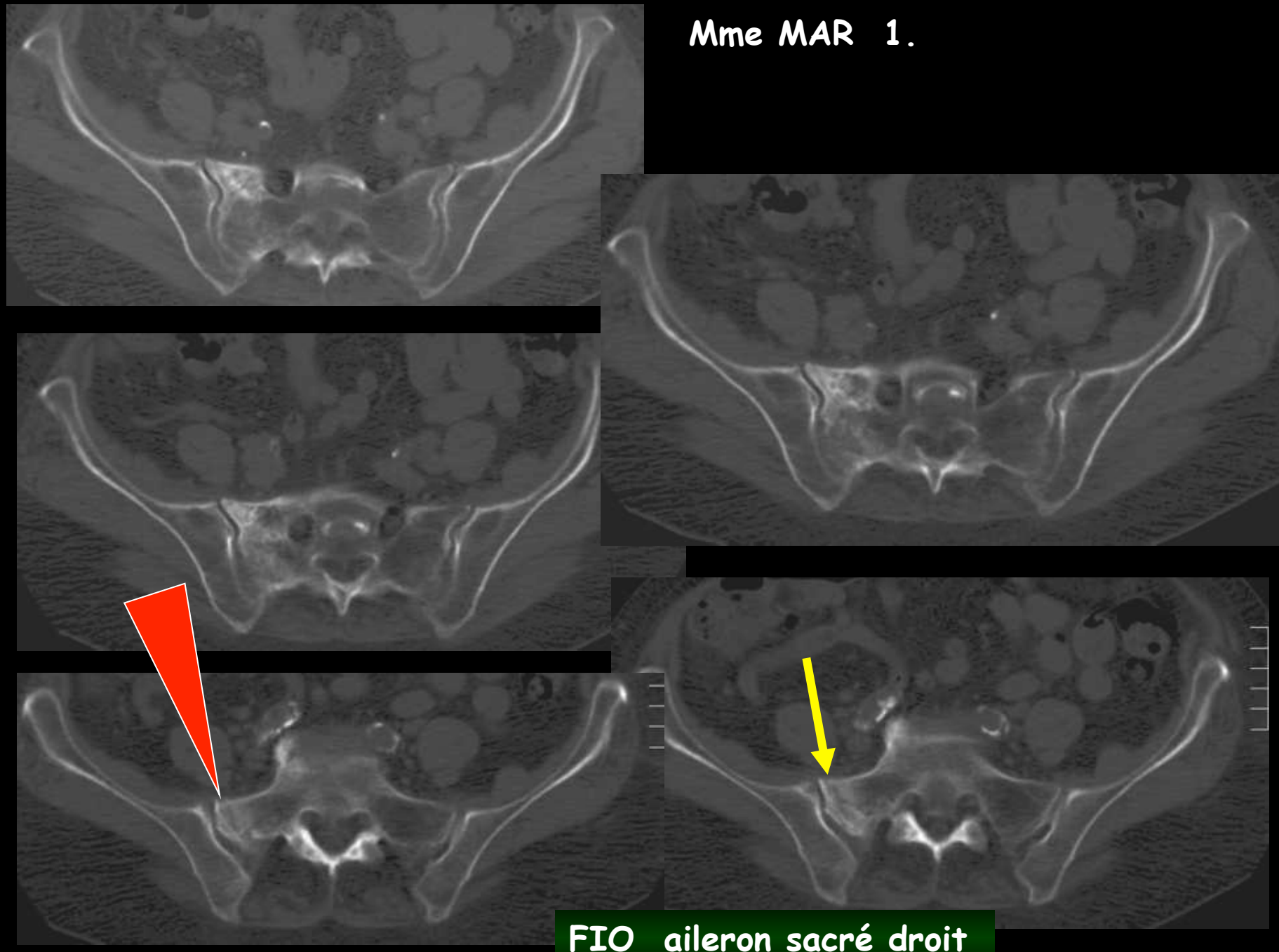






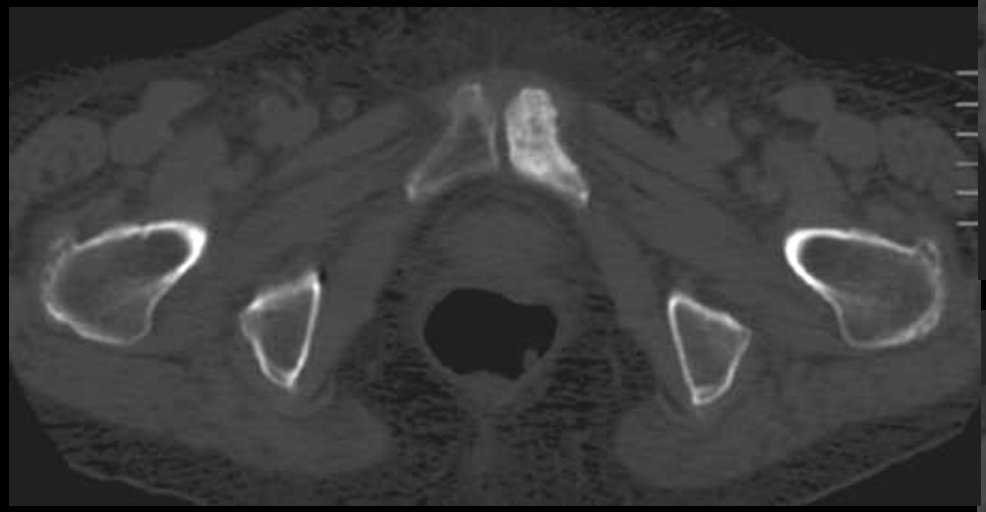
FIO aileron sacré G + parasymphysaire droite + sus cotyloïdienne gauche

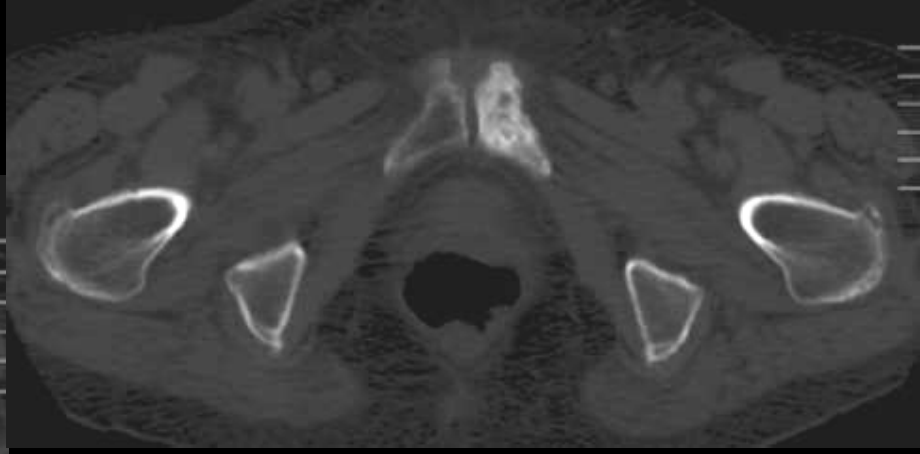
Mme MAR 1.

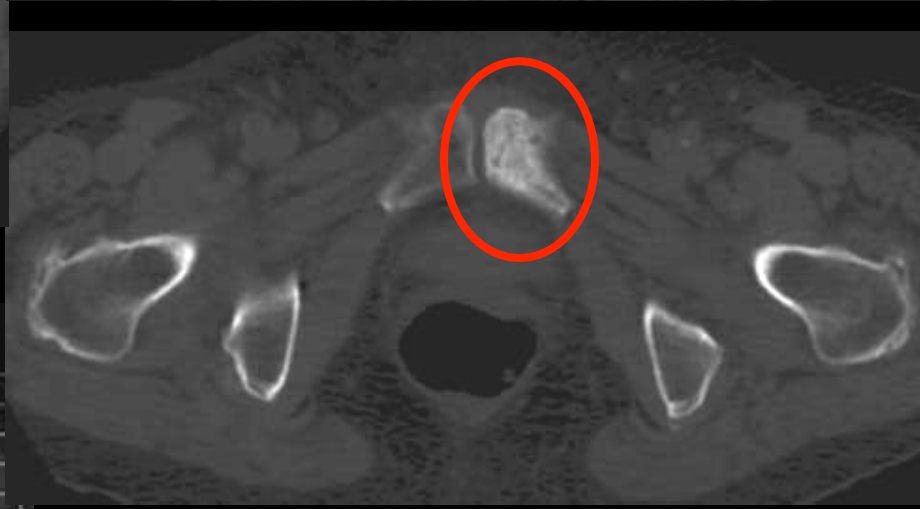


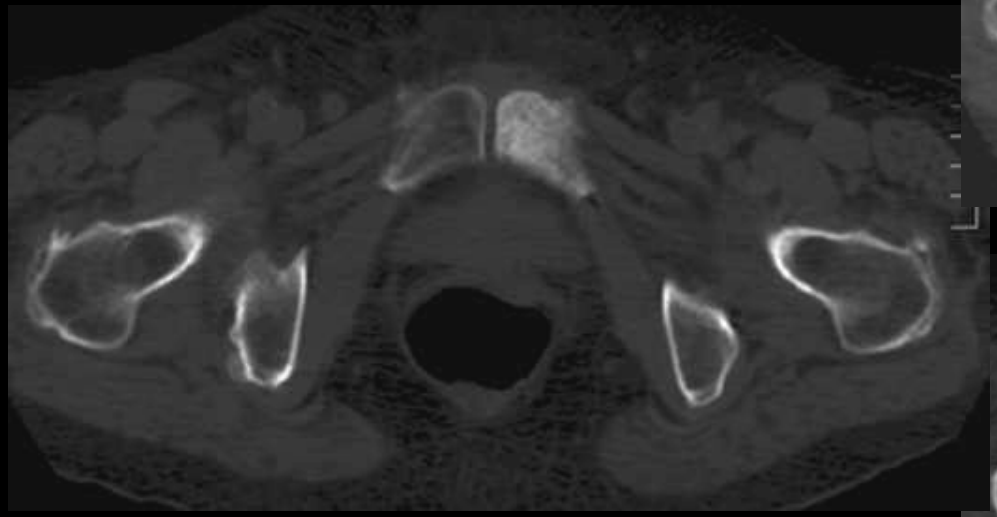
FIO aileron sacré droit

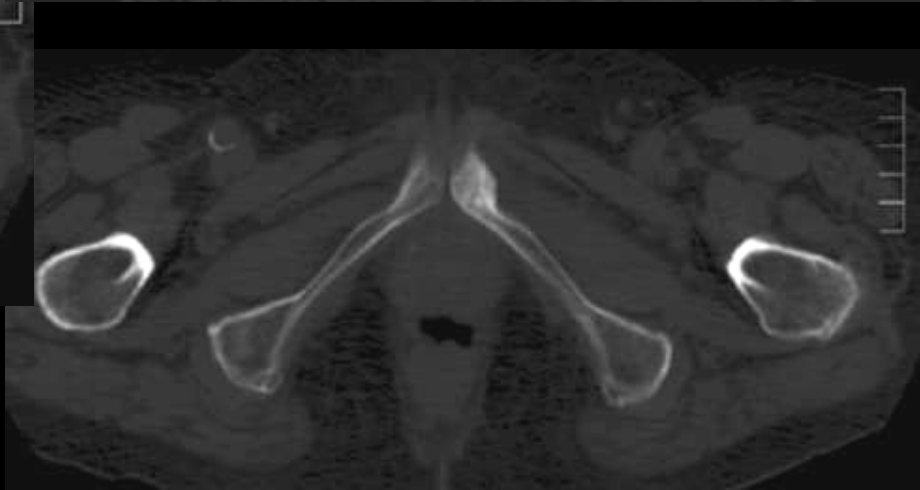
Mme MAR. 2



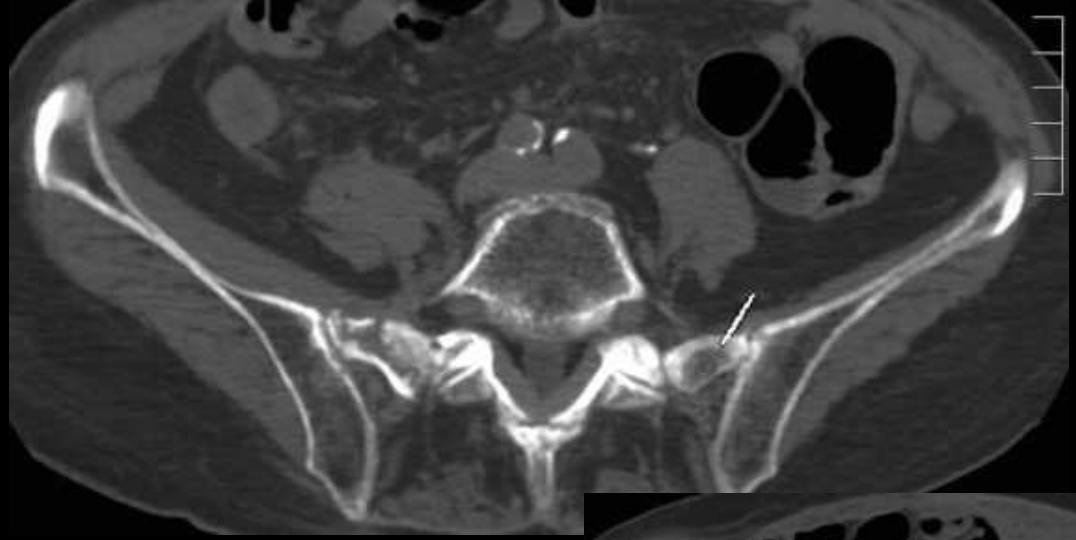


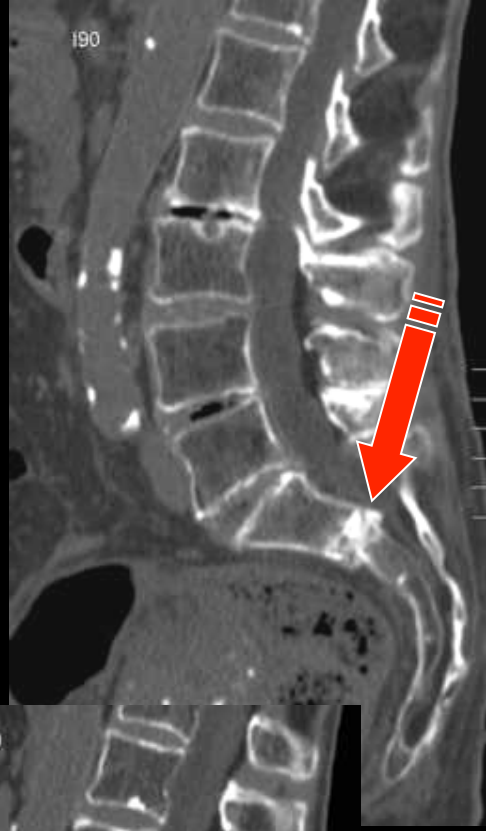






FIO aileron sacré droit et
para symphysaire gauche ! !

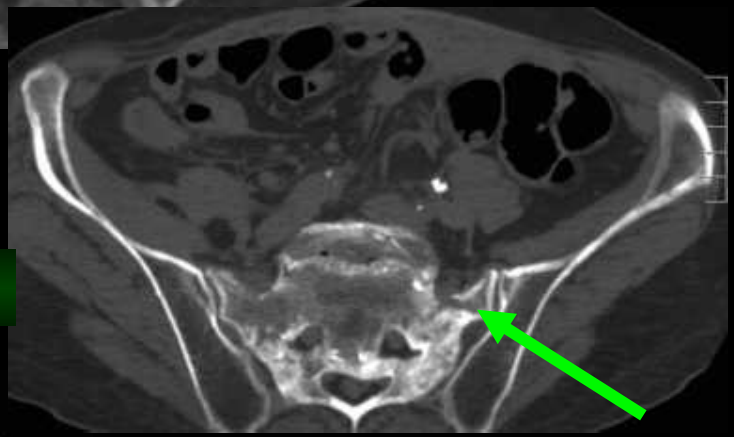


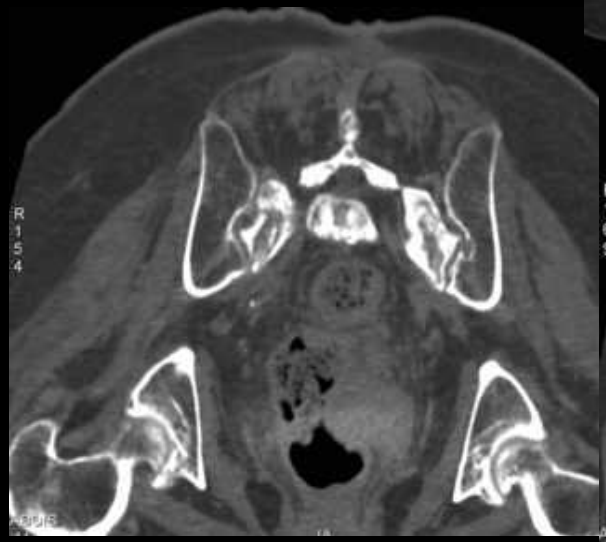


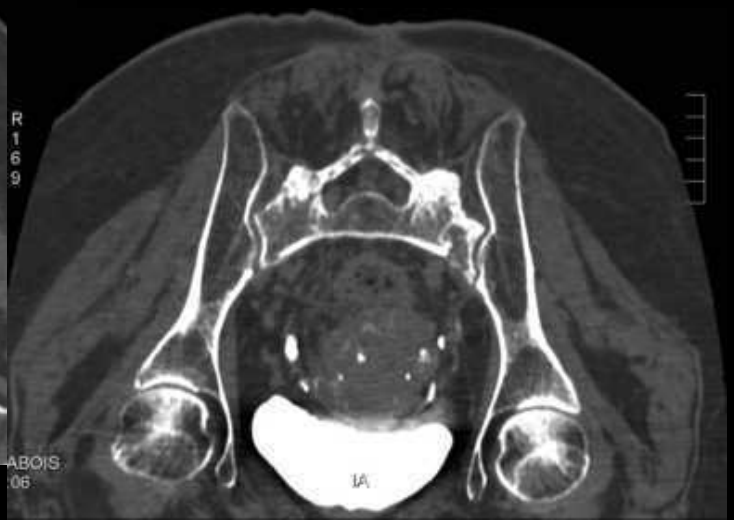
Mme TEN. 73 ans 1

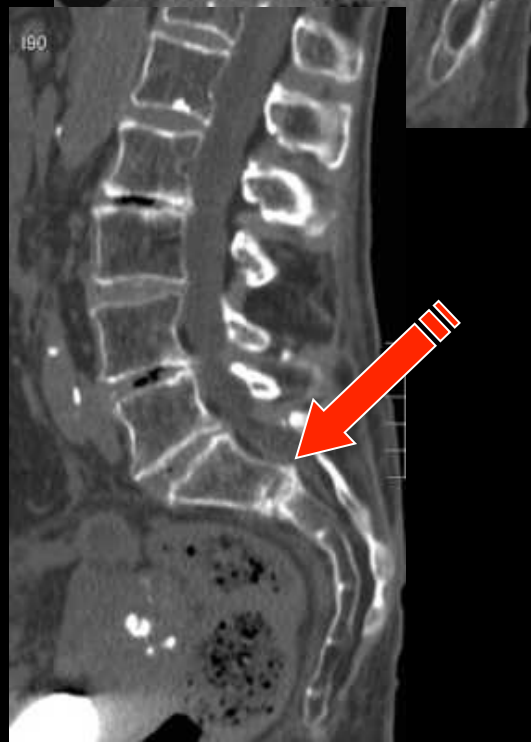
09 10 2003

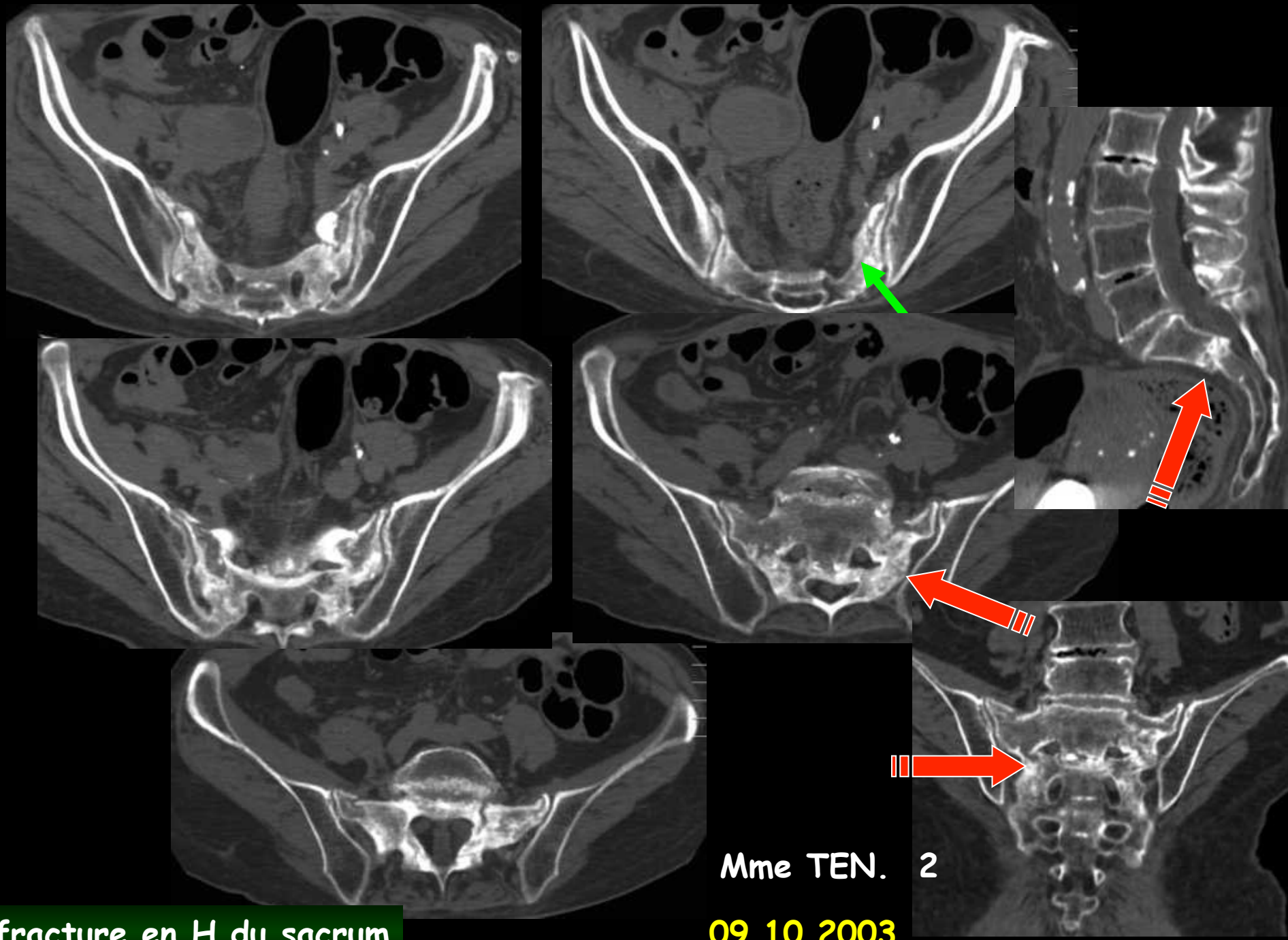
fracture en H du sacrum

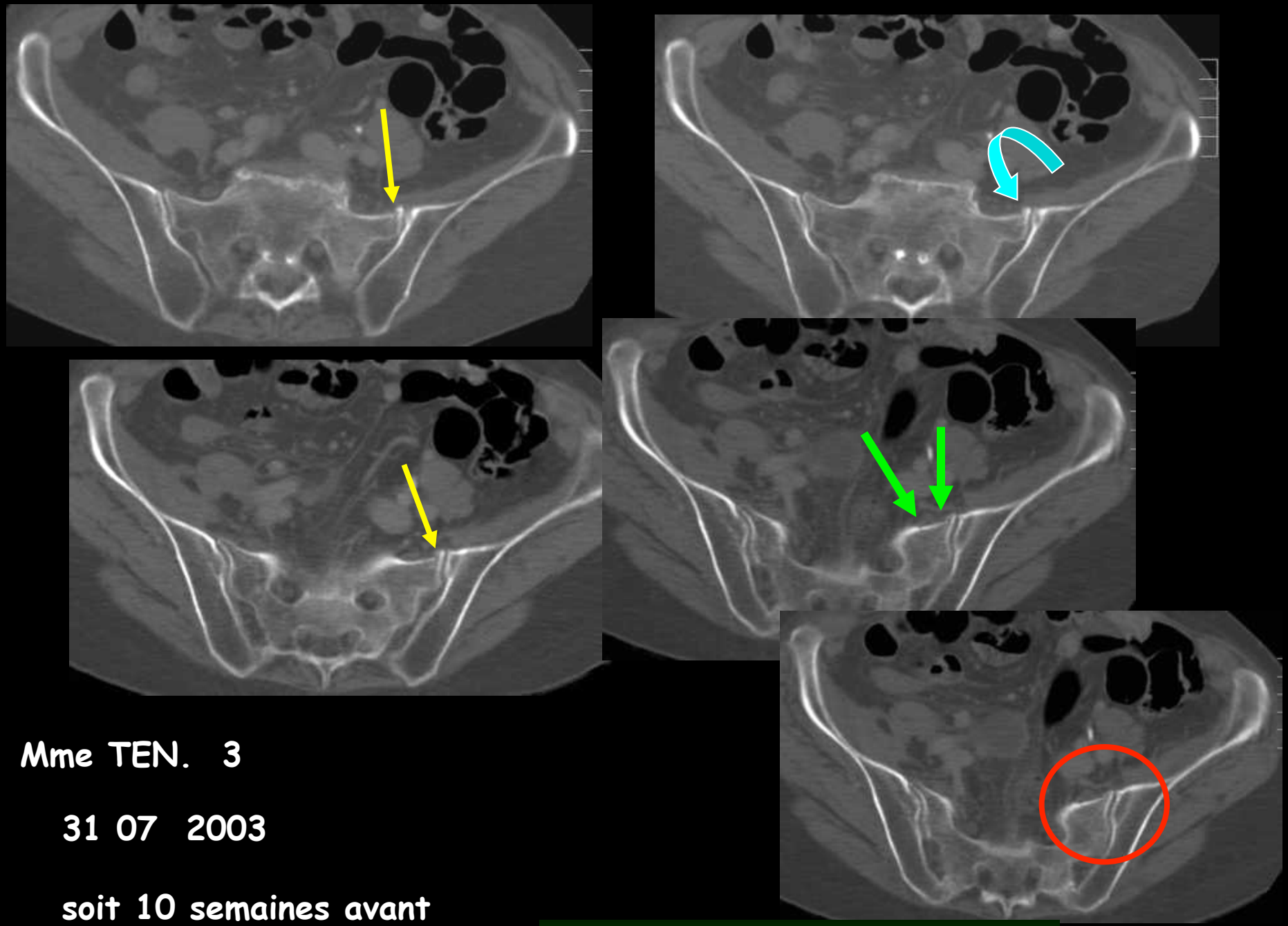









Mme TEN. 2
09 10 2003
fracture en H du sacrum

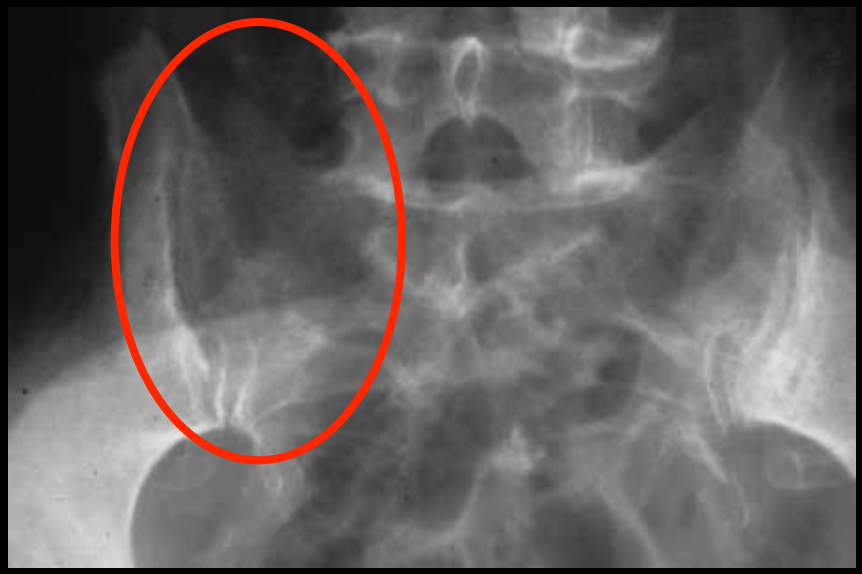


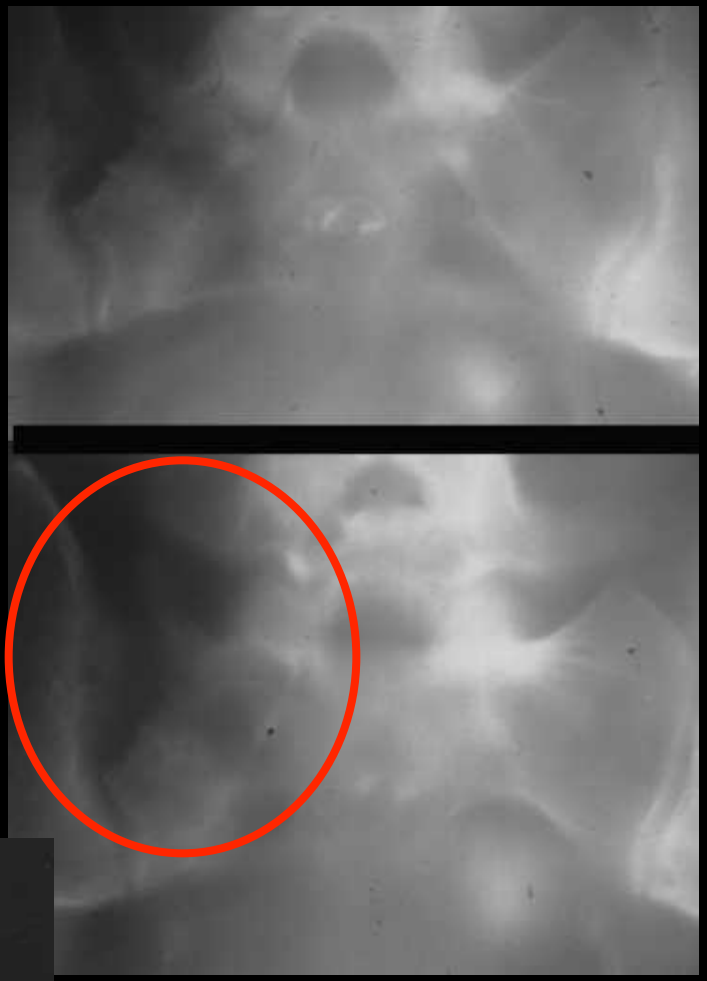
Mme TEN. 3

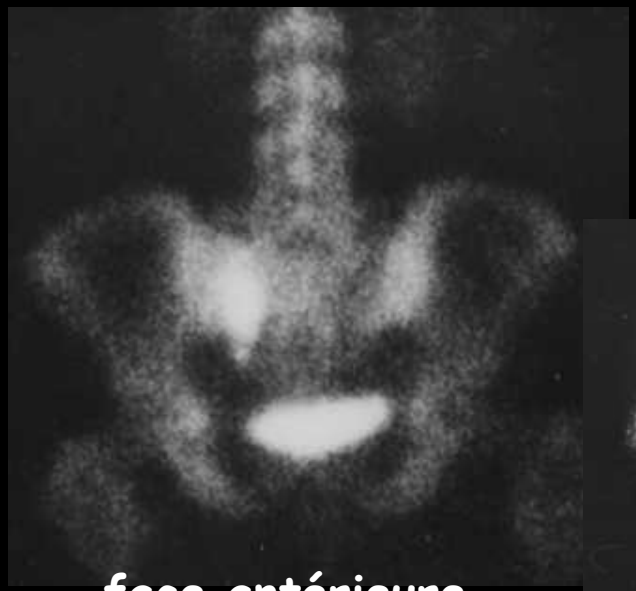
31 07 2003

soit 10 semaines avant
le précédent examen ….

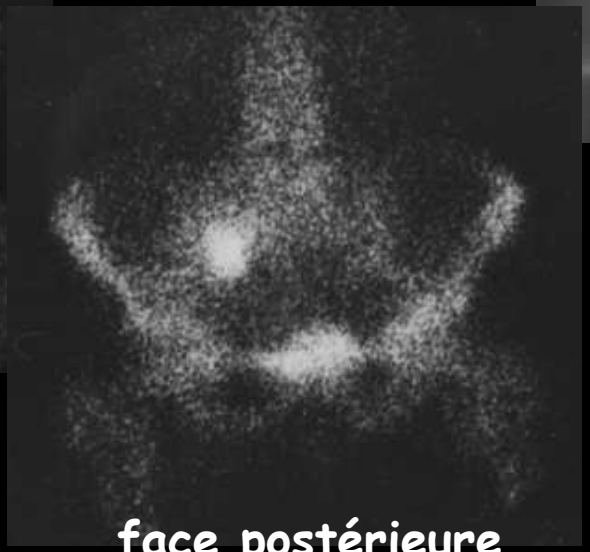
fracture aileron sacré gauche





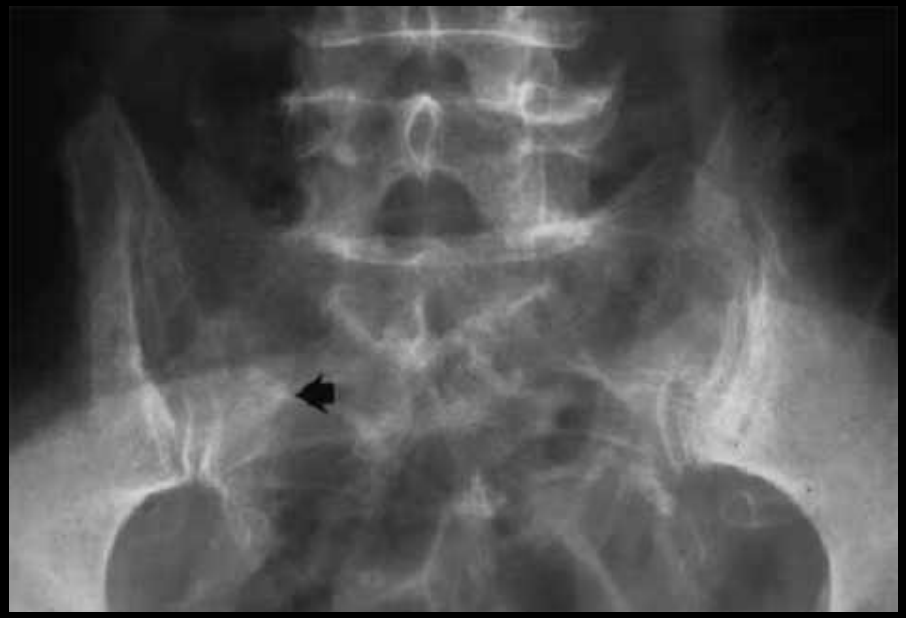


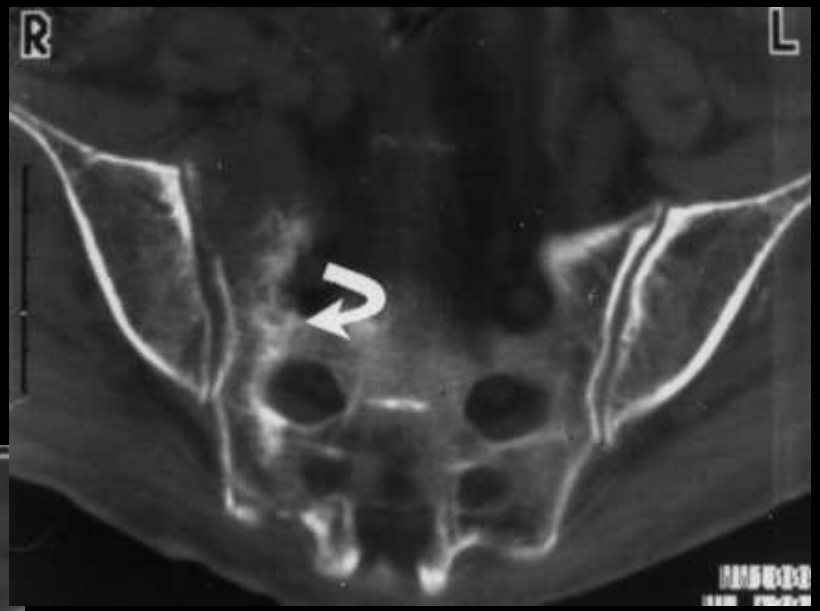
face antérieure

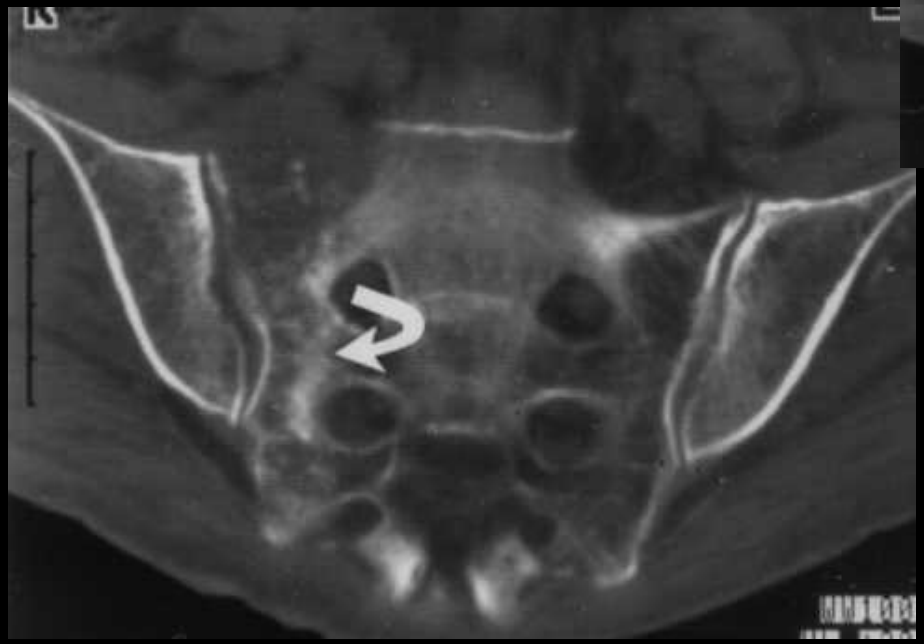


face postérieure

Mme DEL. 13

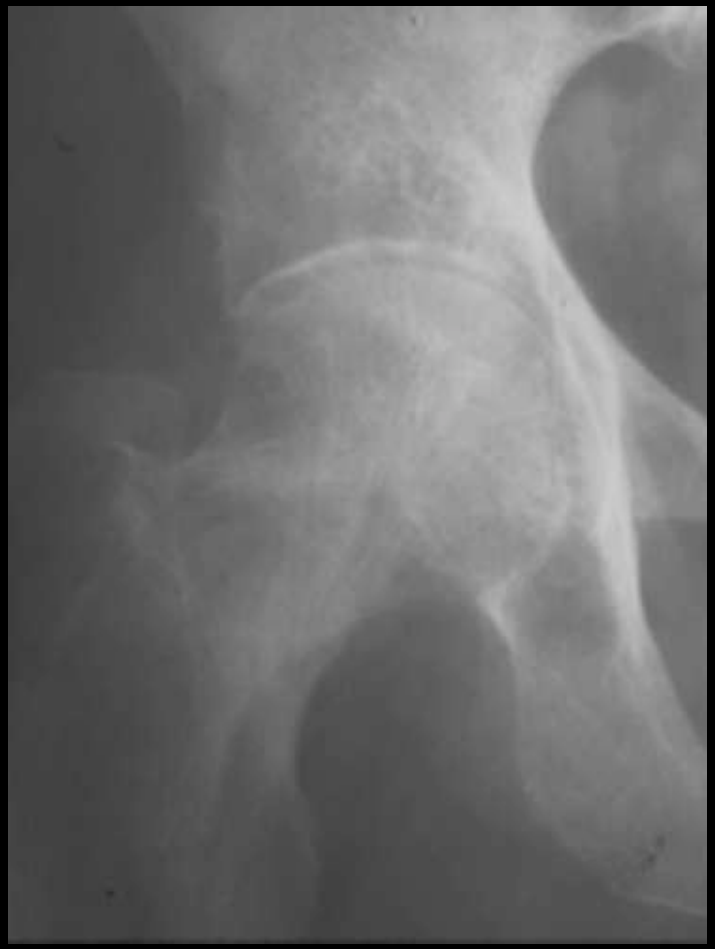


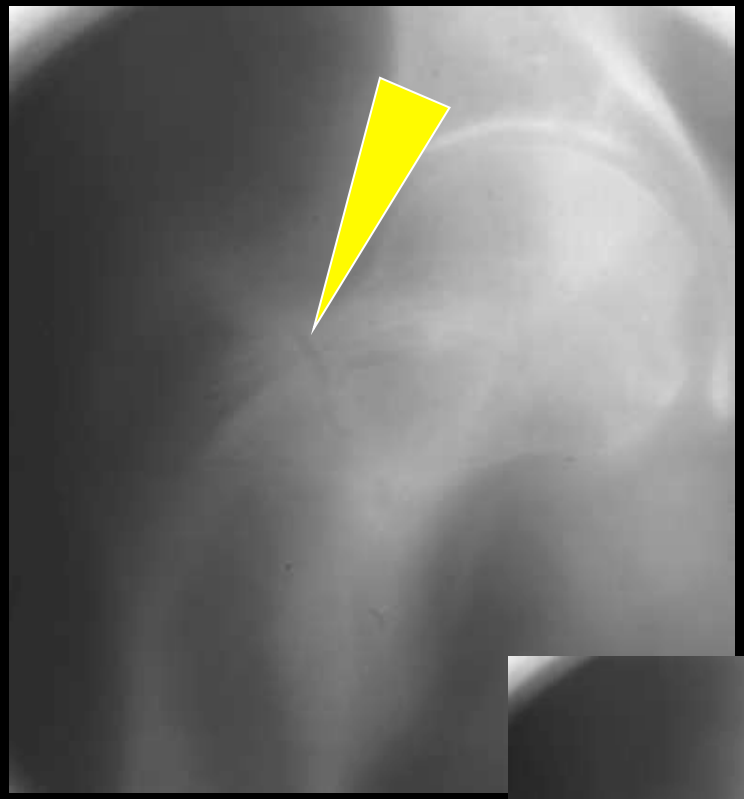


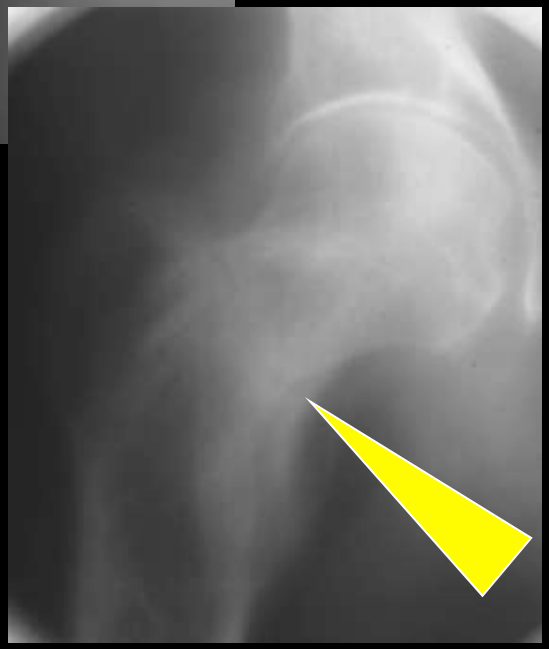


Mme DEL. 13

FIO du sacrum provoquée ou favorisée par une métastase ostéolytique d'un adénocarcinome mammaire

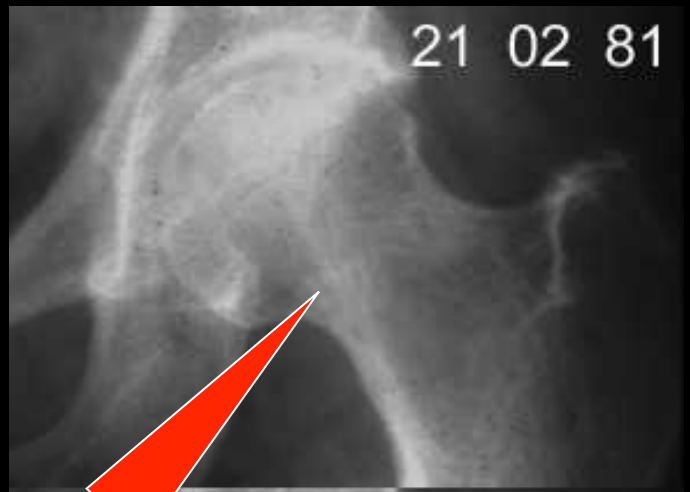


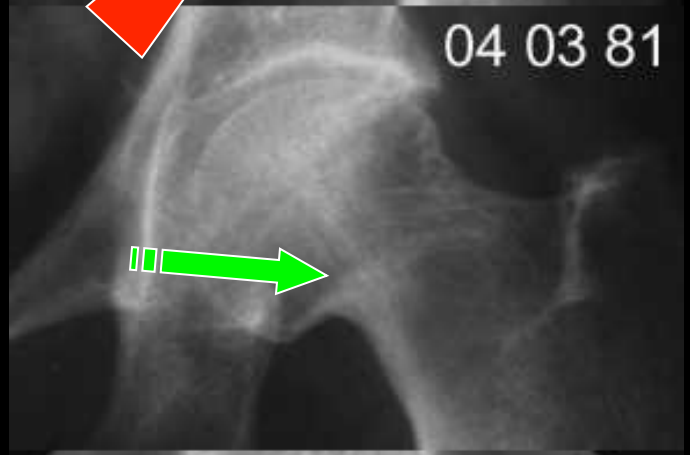


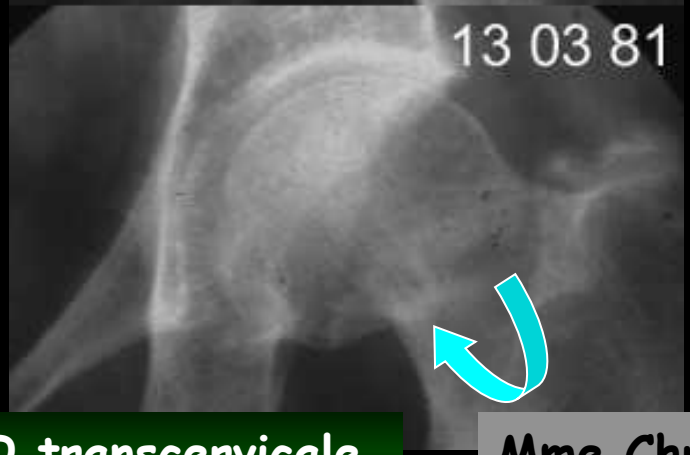


MR Beck.

FIO transcervicale

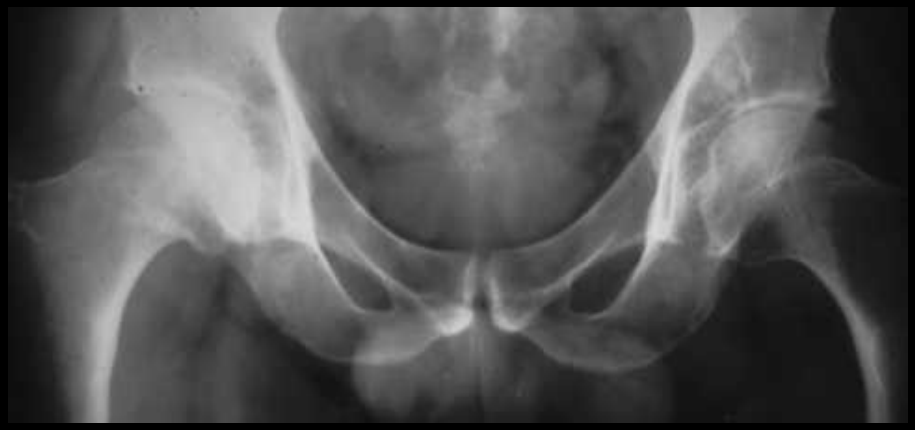


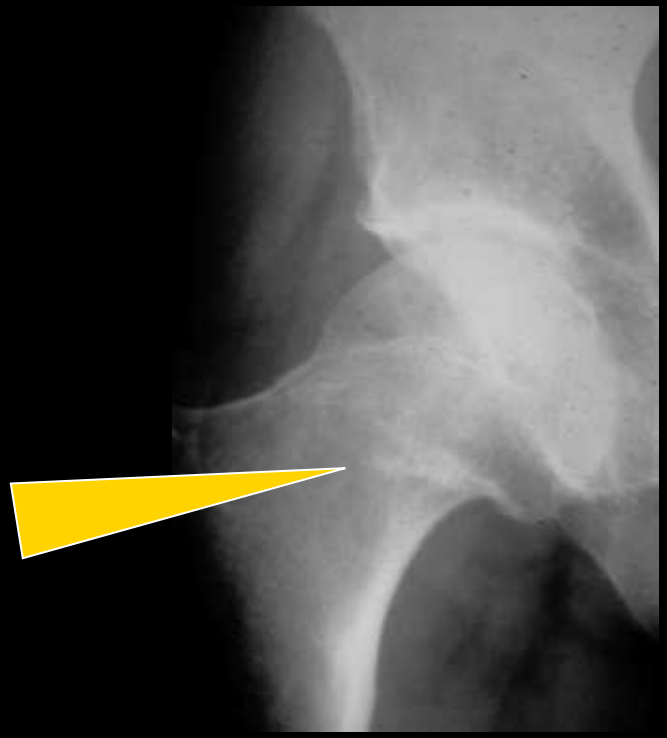




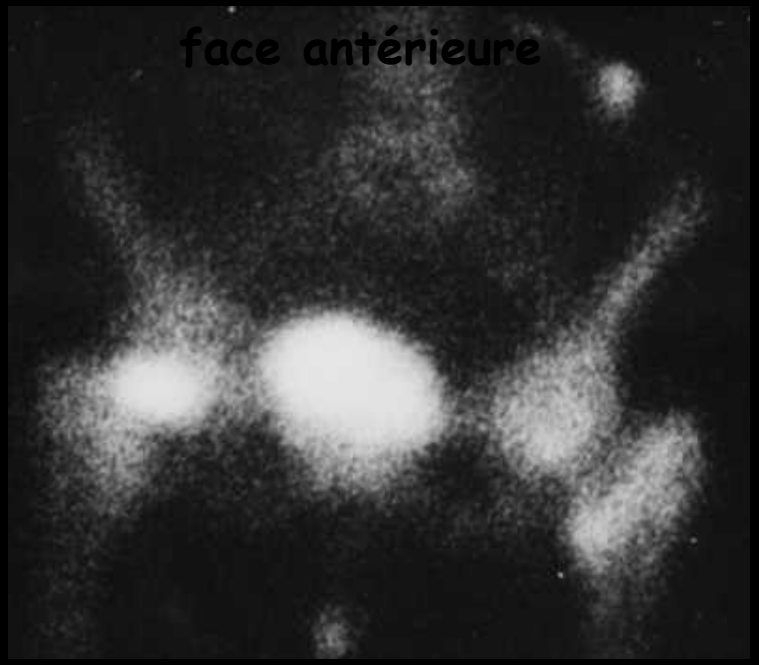
FIO transcervicale

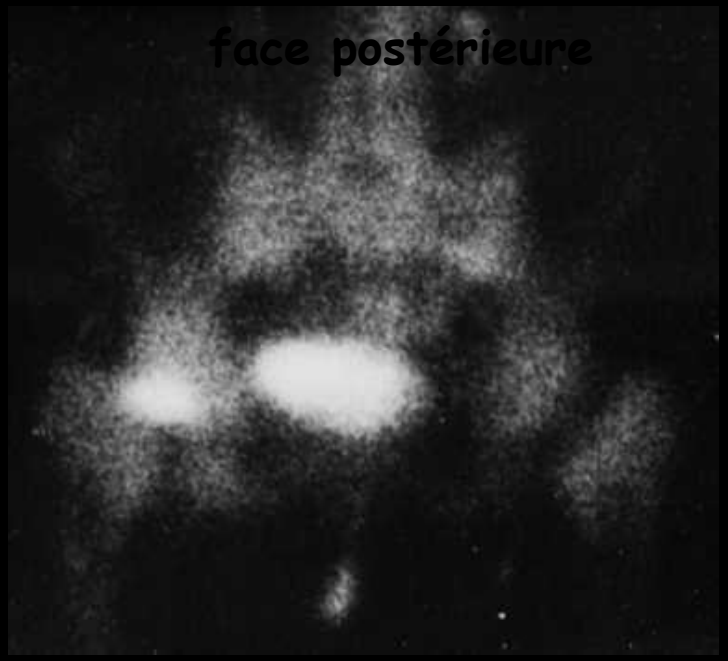
Mme Chr.



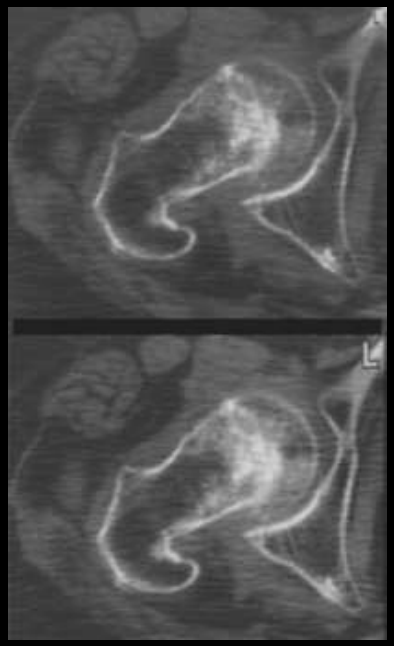


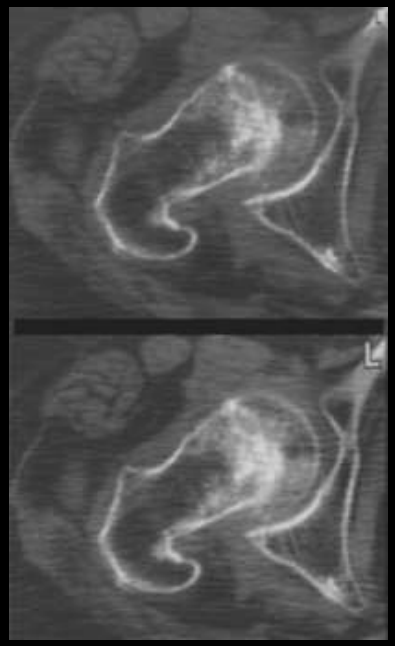
Mr Kin.

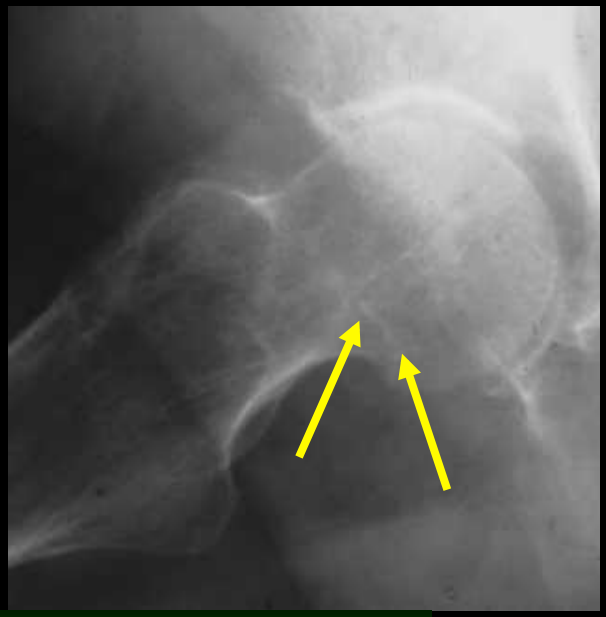




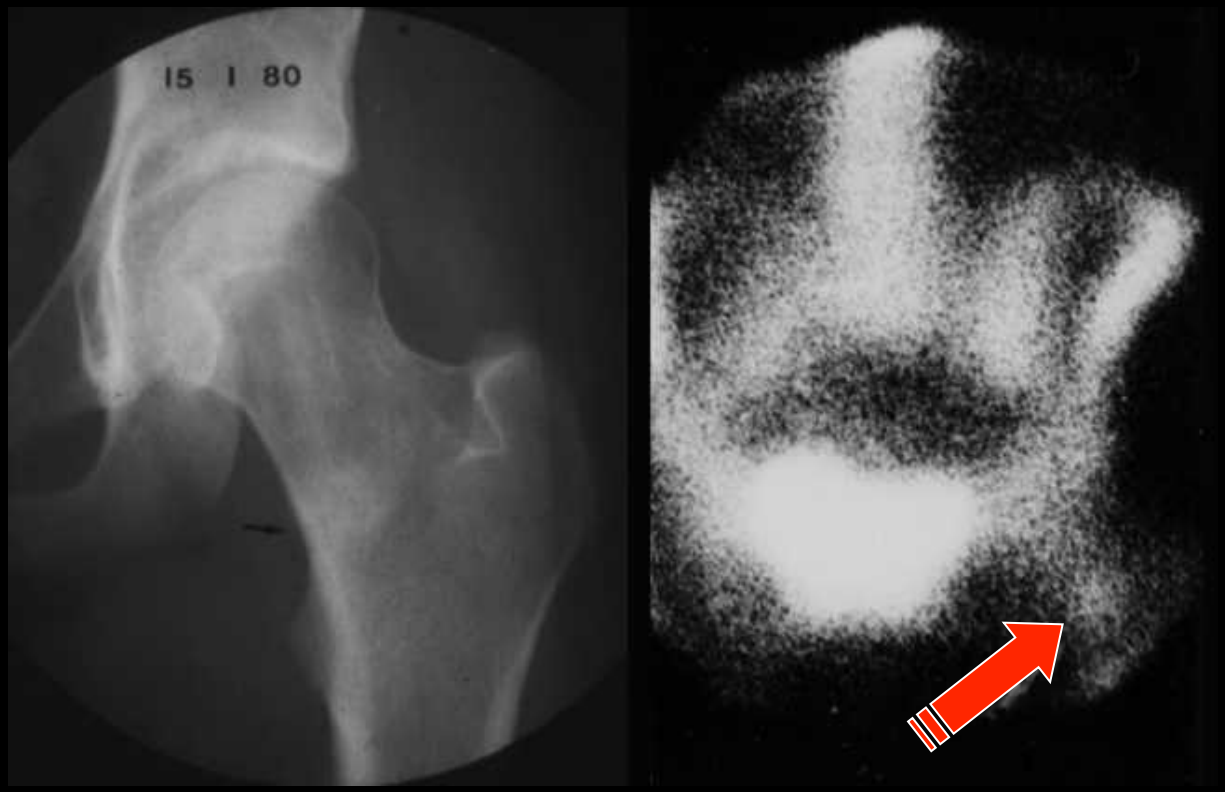
Mme Cho.



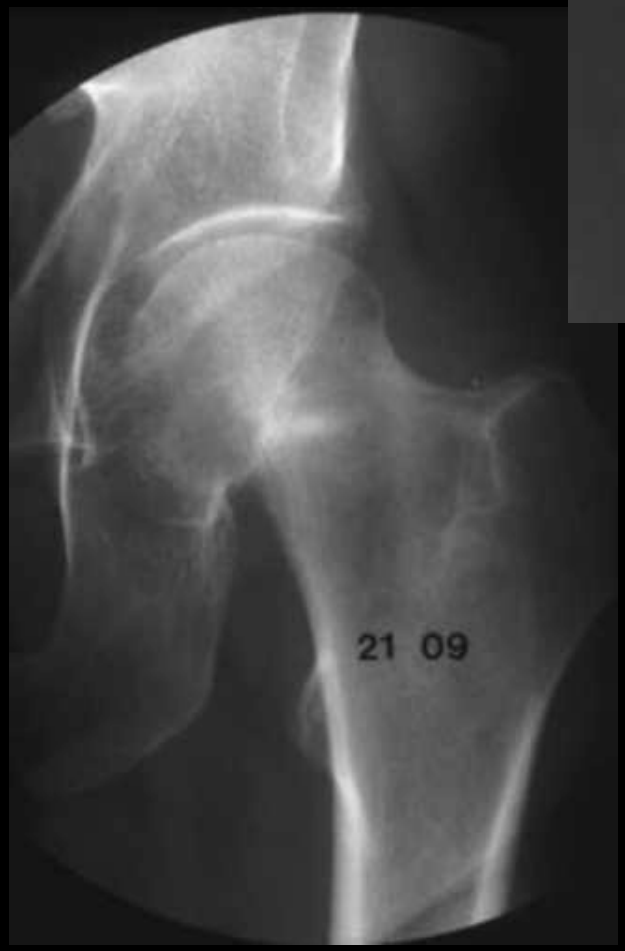




FIO transcervicale



fracture de fatigue du col fémoral ! ! !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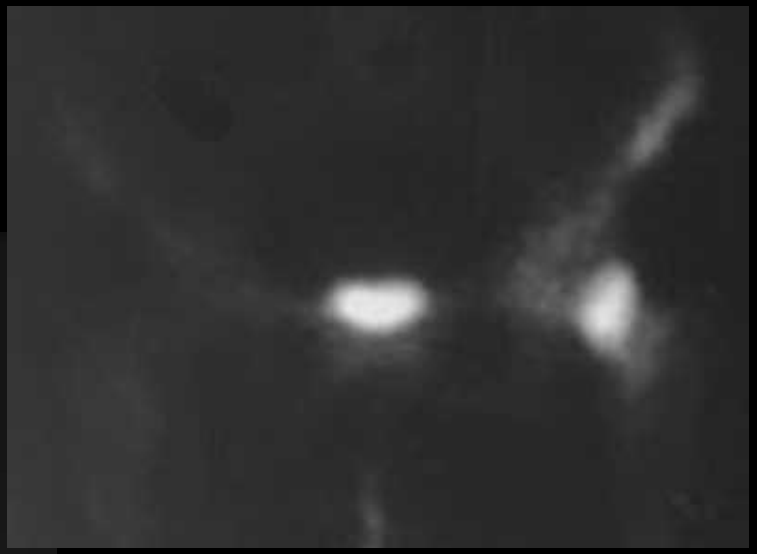
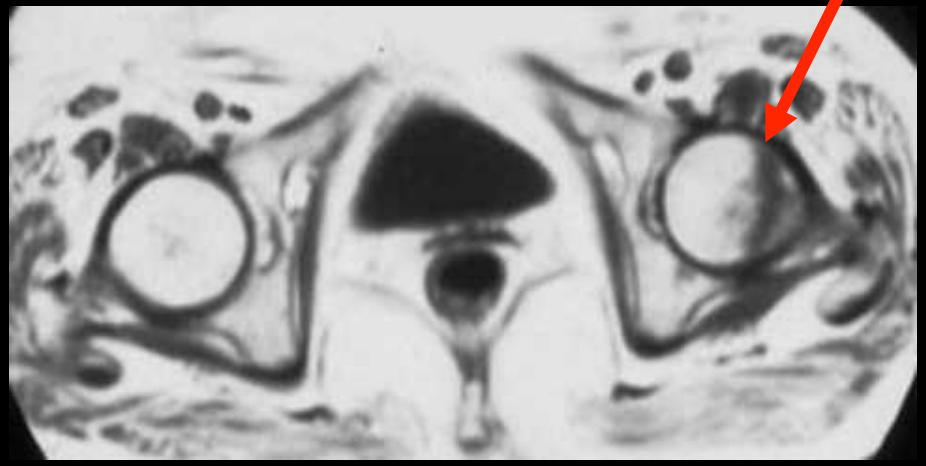
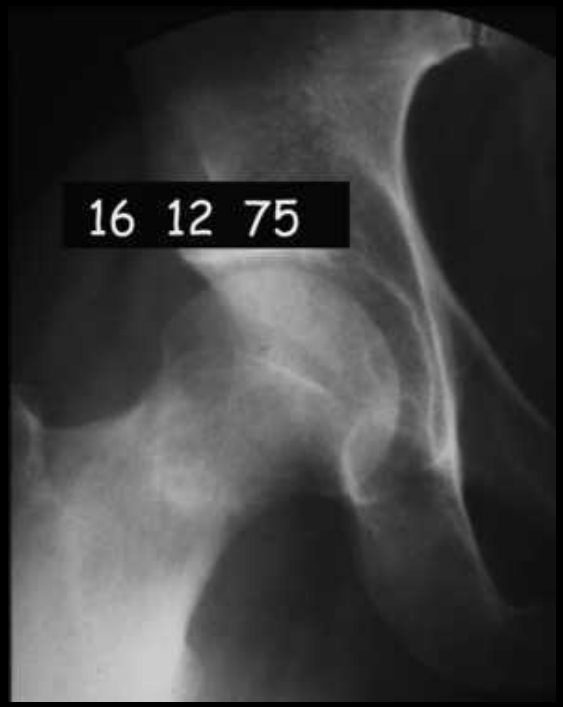
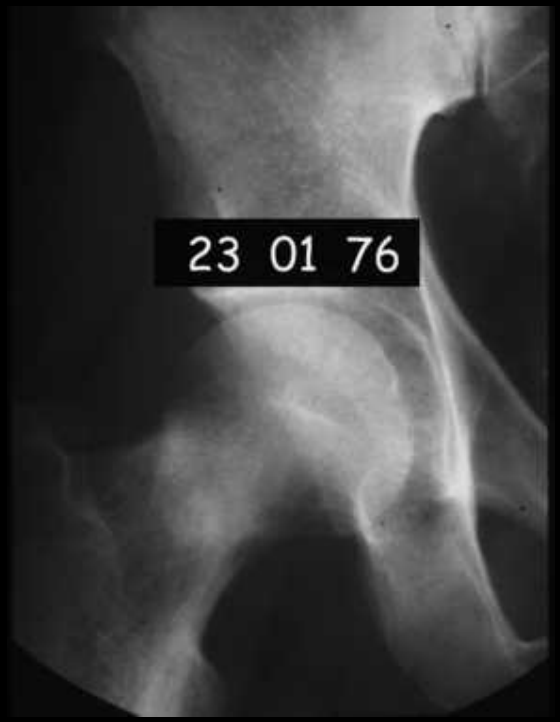
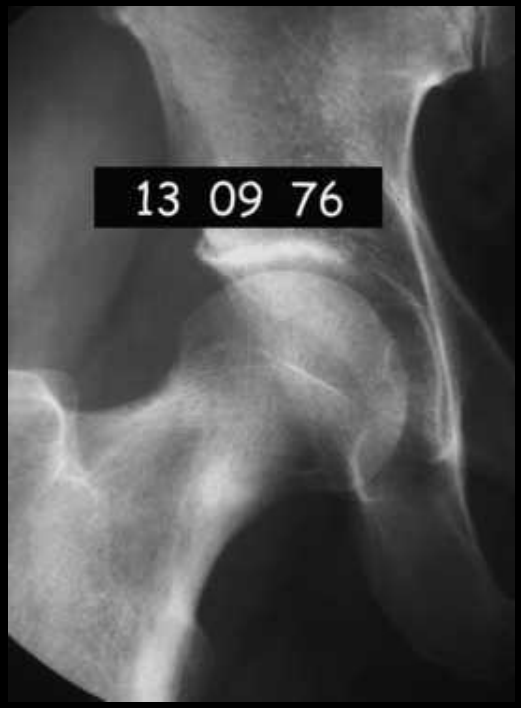
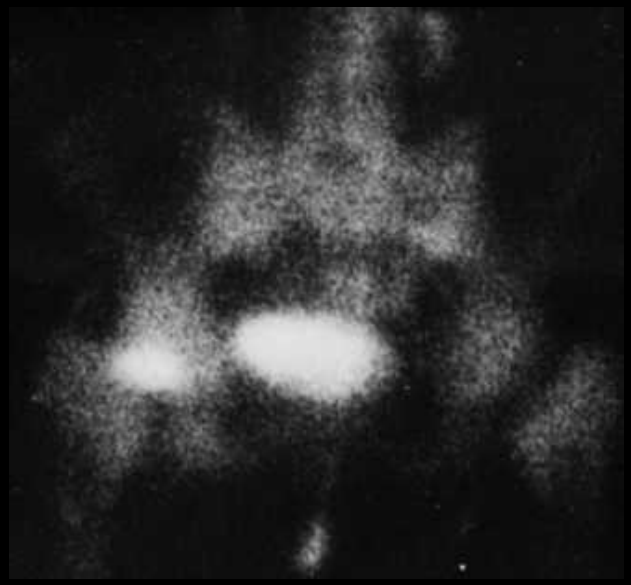




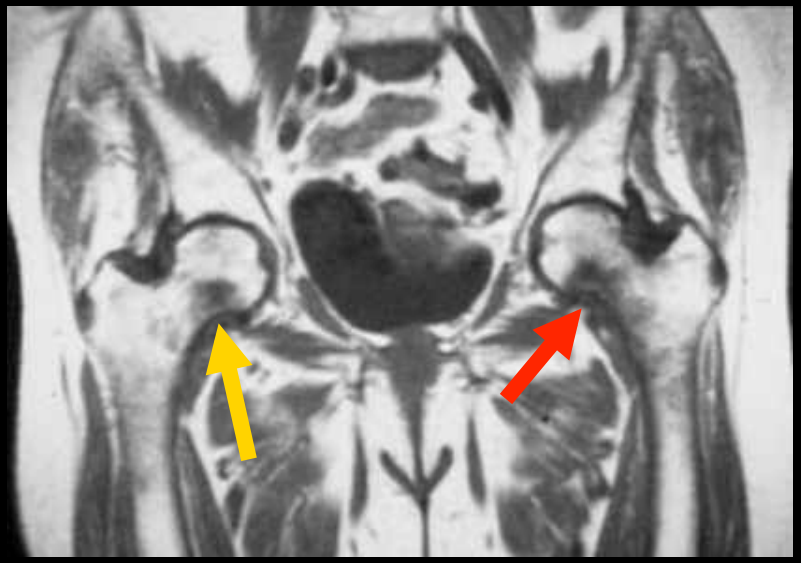


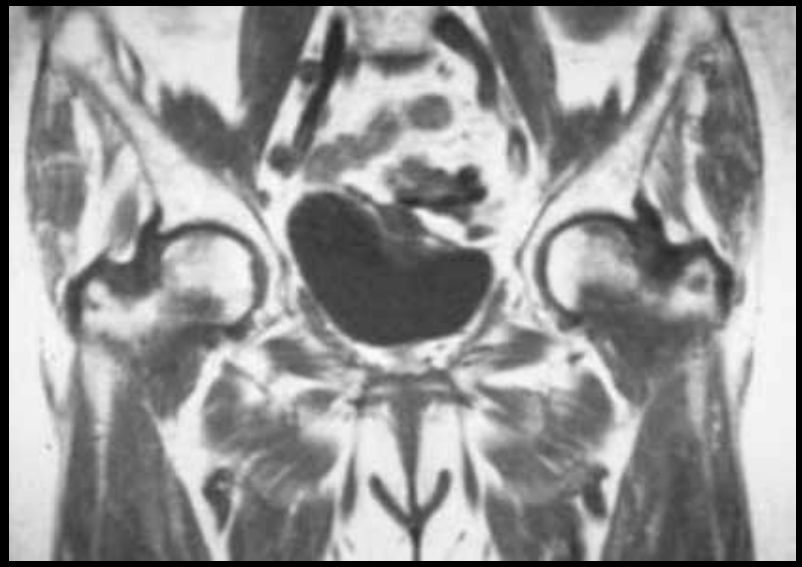


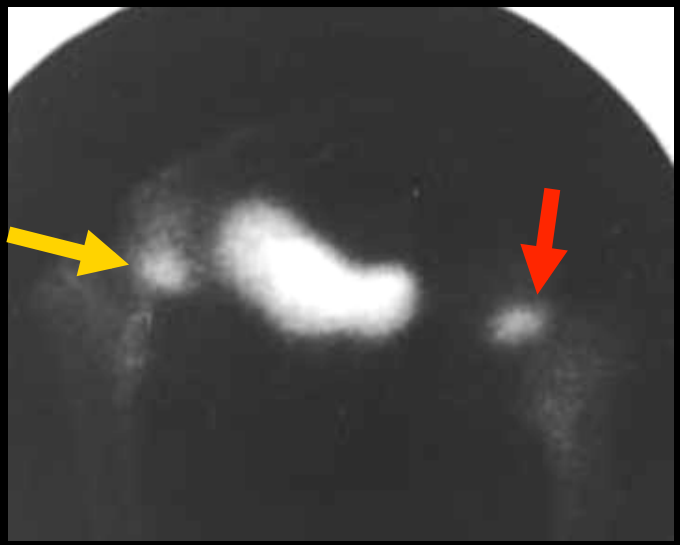


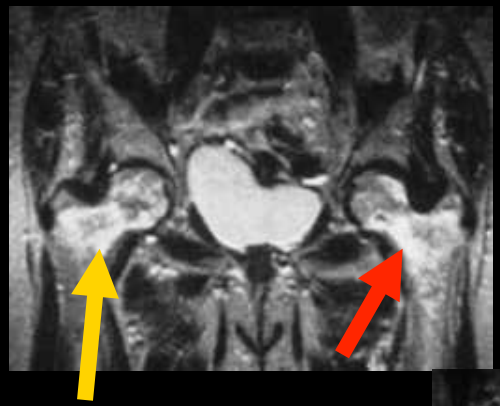


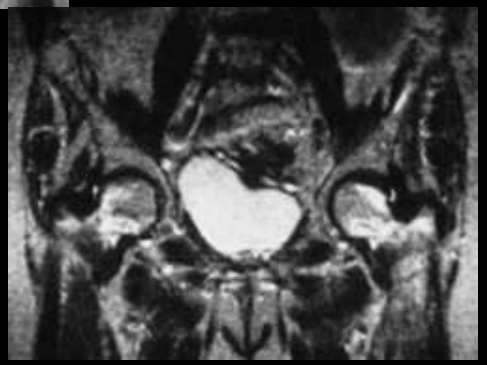
évolution d'une fracture de fatigue du col fémoral ! ! !





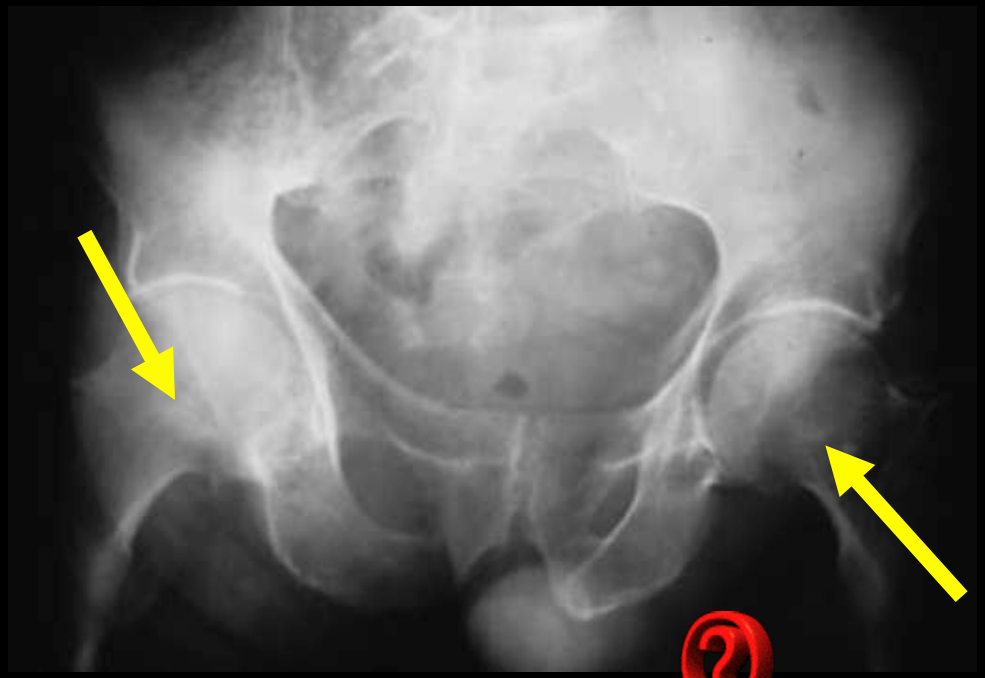


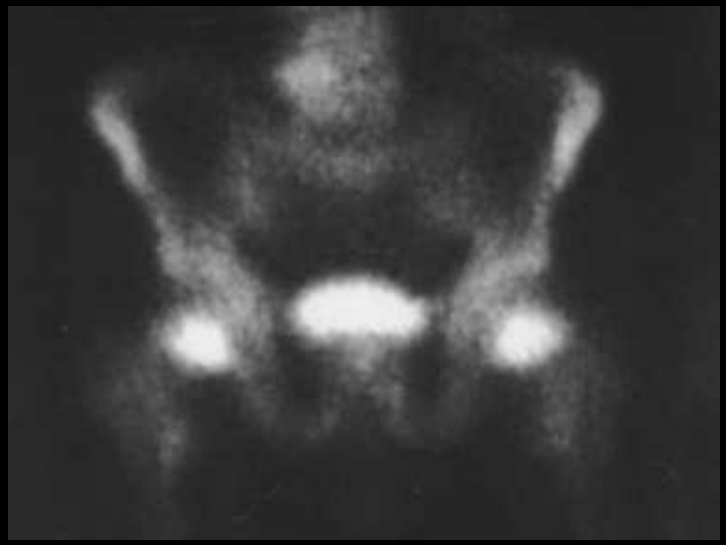


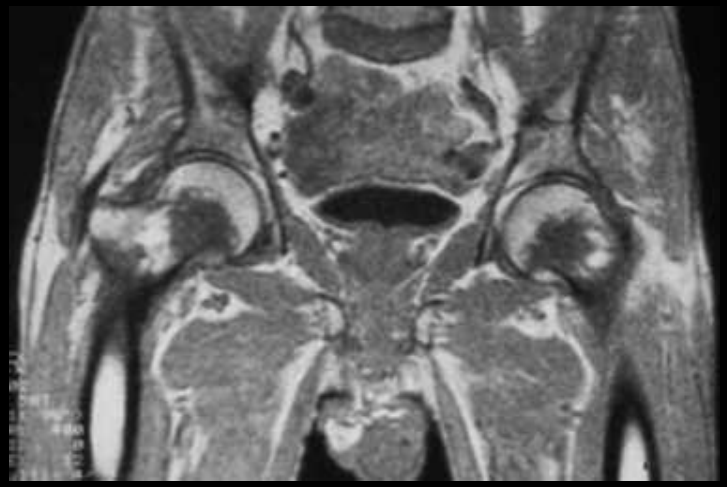


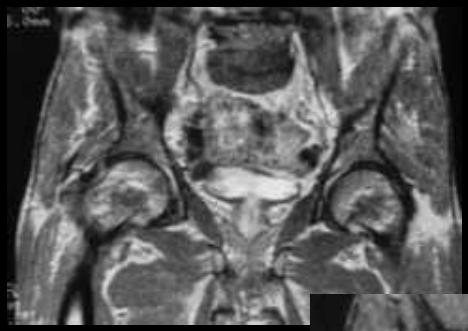
FIO des 2 cols fémoraux ; IRM 0.5T

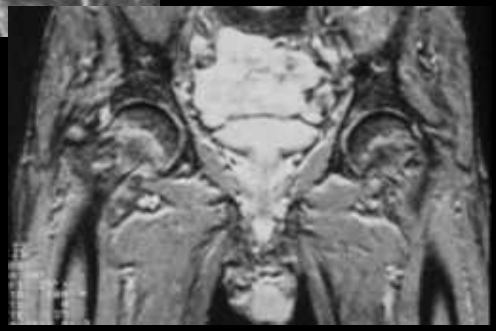
Mme Hig.





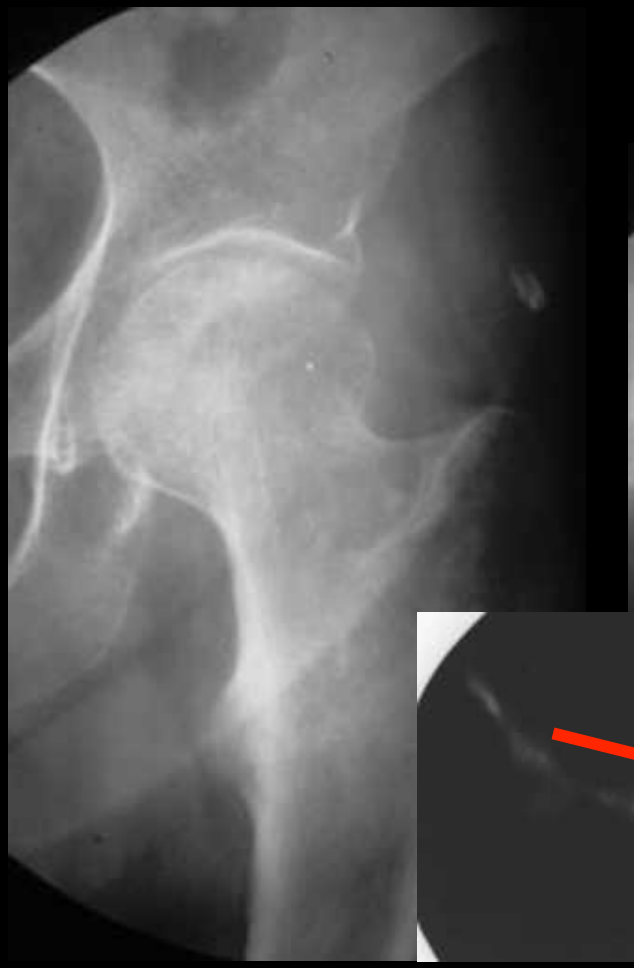


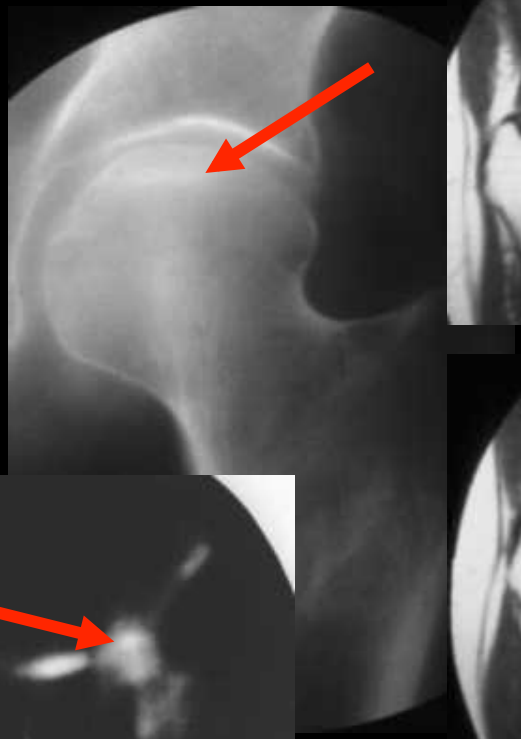


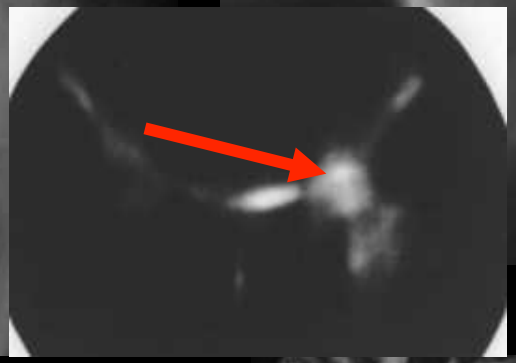


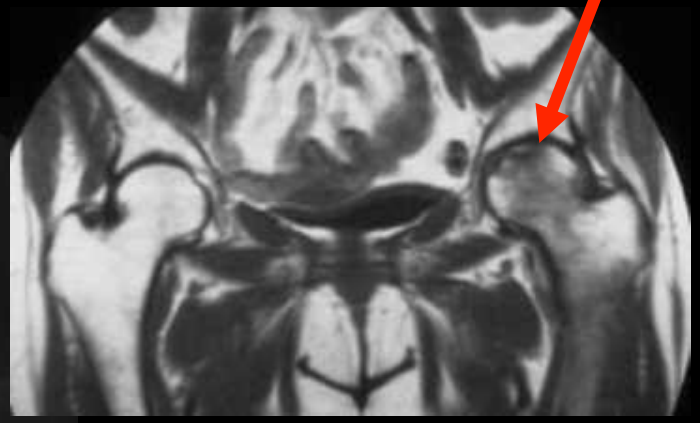
Mr Kos..

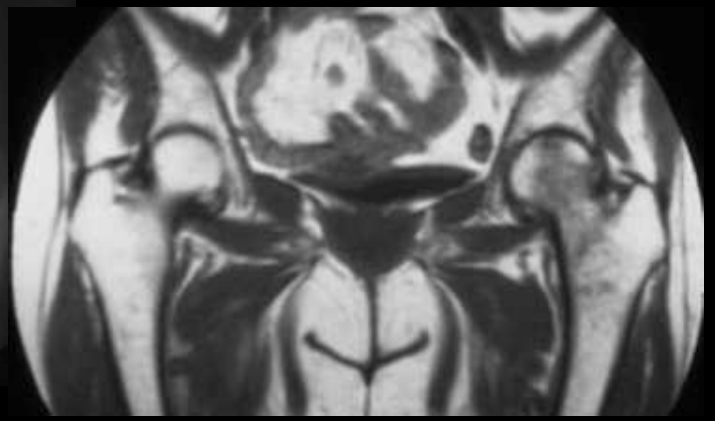
FIO des 2 cols fémoraux ; IRM 0.5T

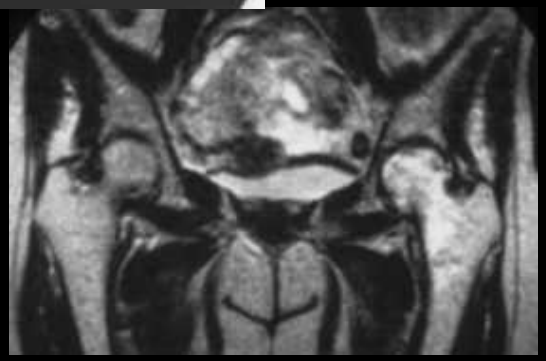


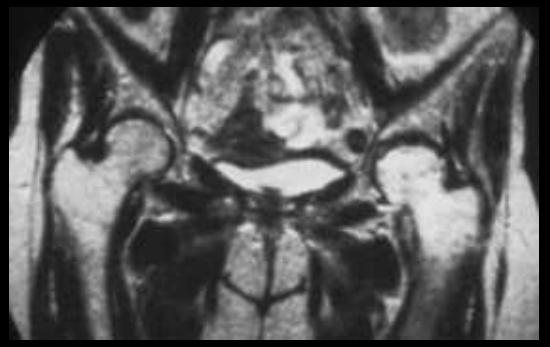






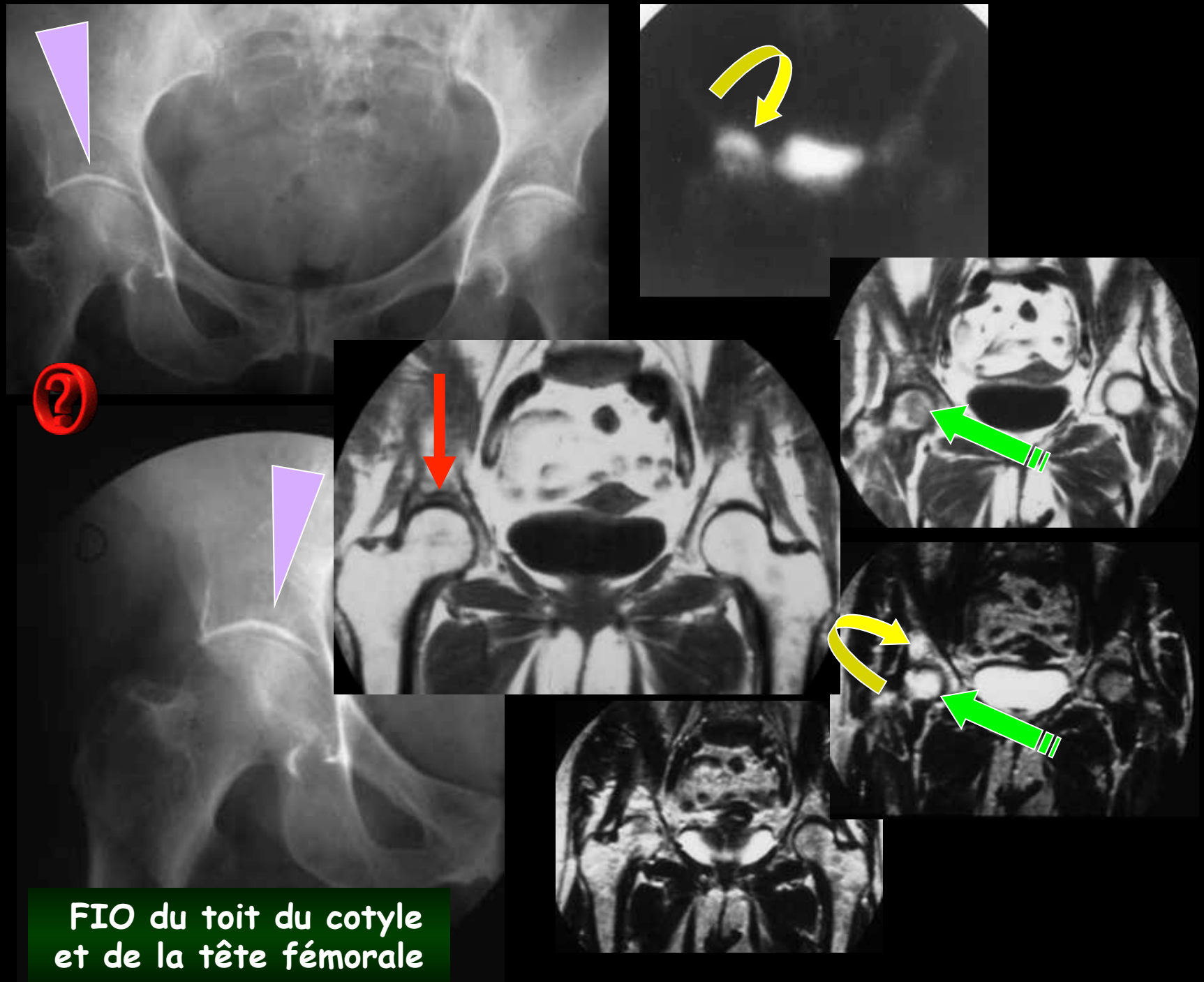


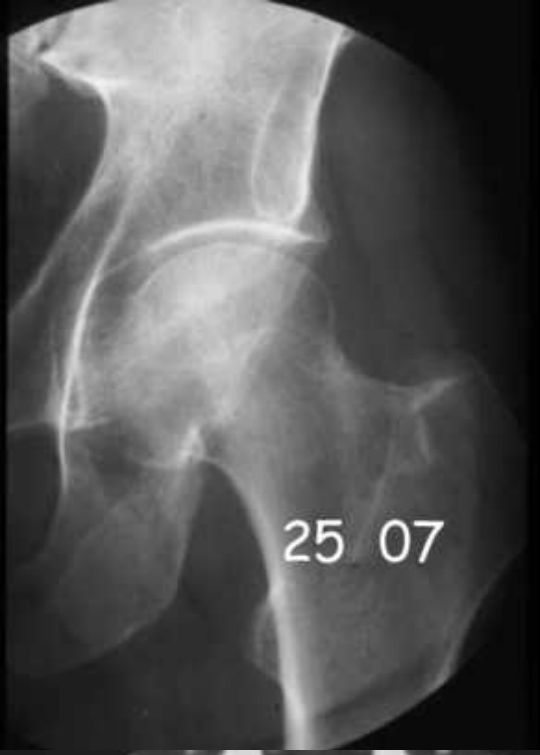


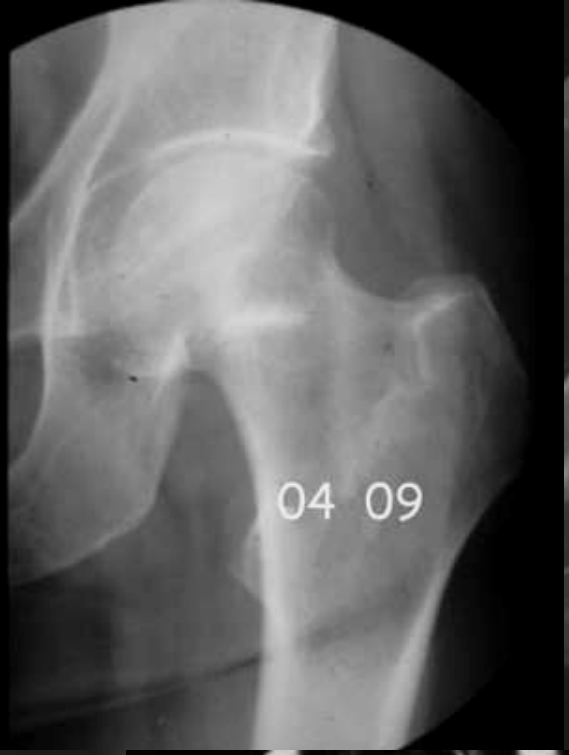


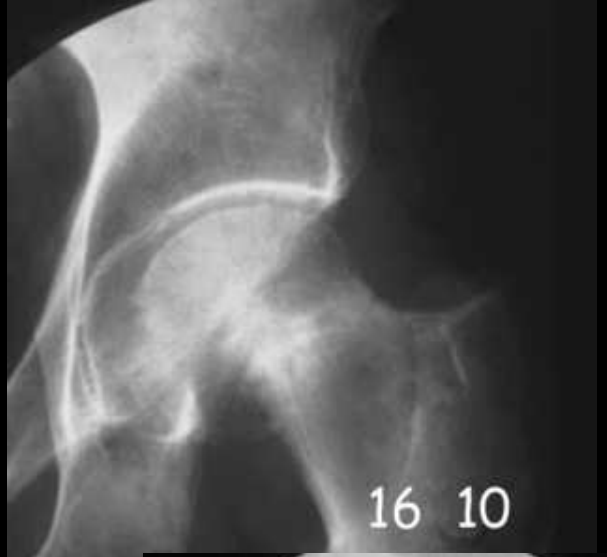
FIO de l'épiphyse fémorale supérieure; Diag. differentiel : algodystrophie , ONA ! ! !

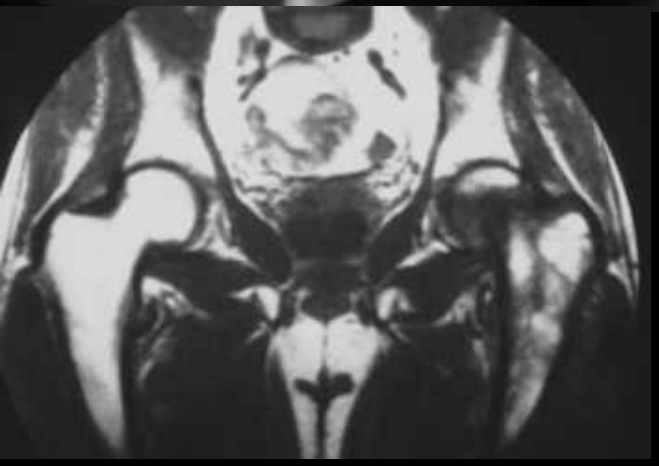
Mme Wie...

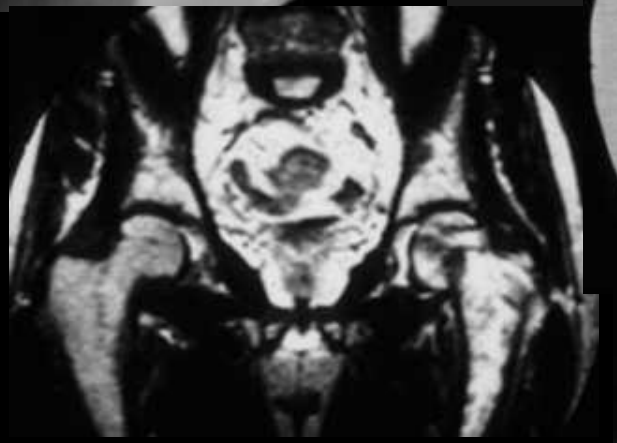

FIO du toit du cotyle
et de la tête fémorale

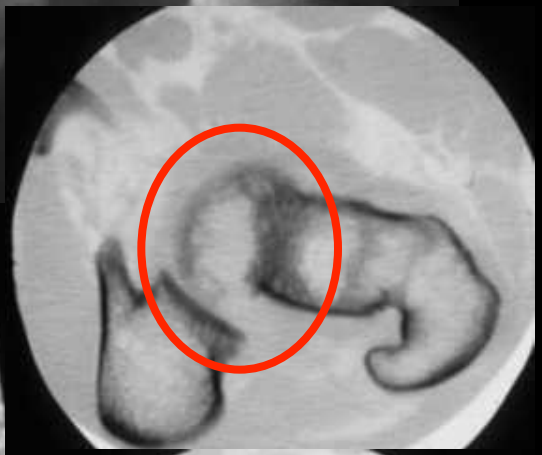


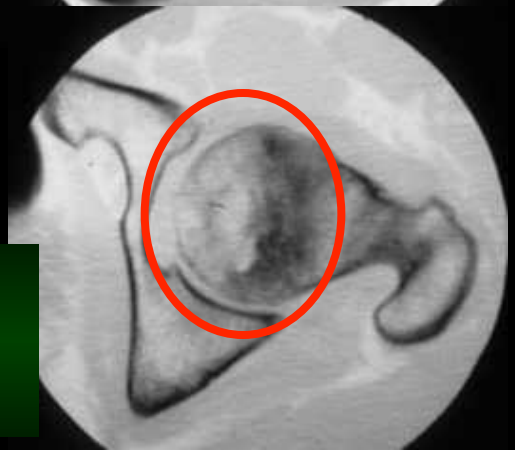






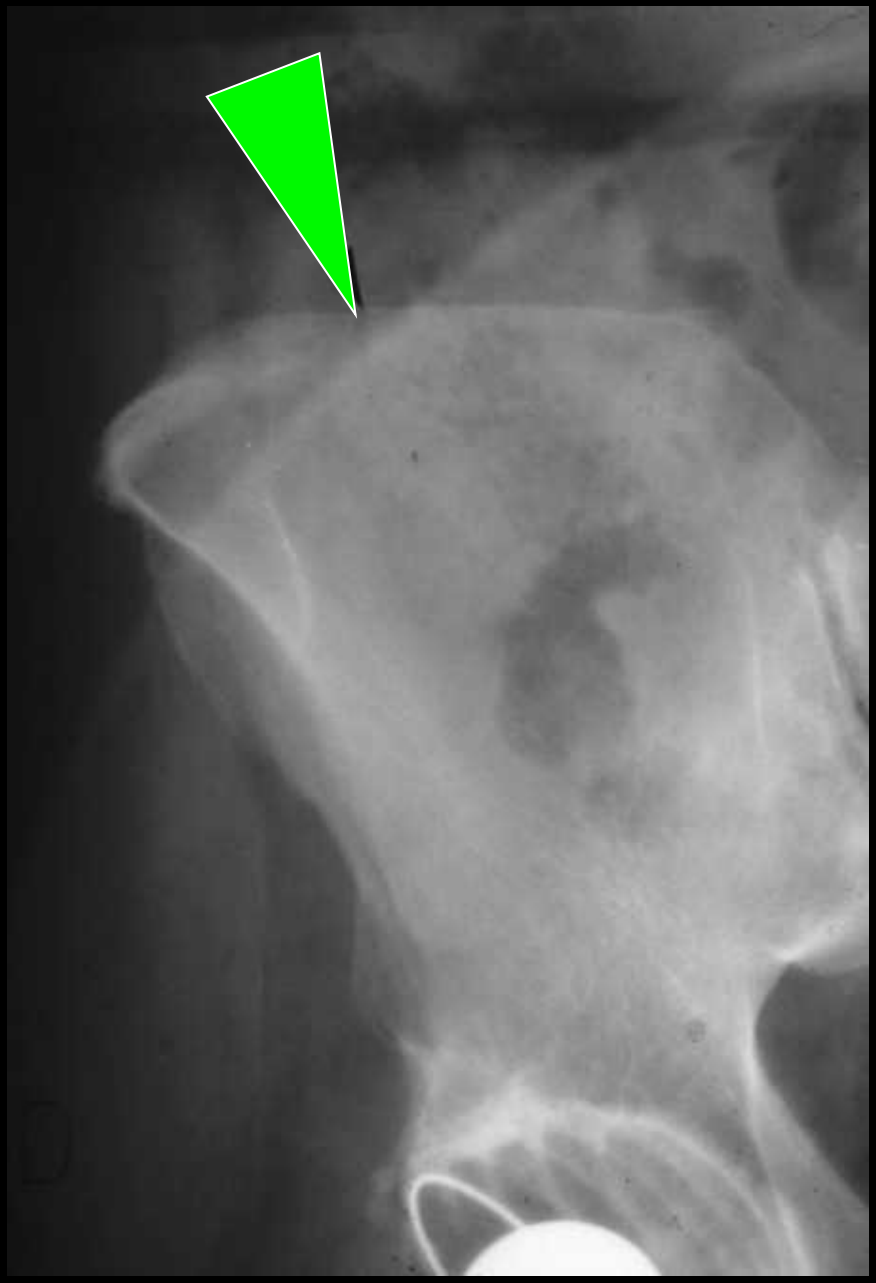


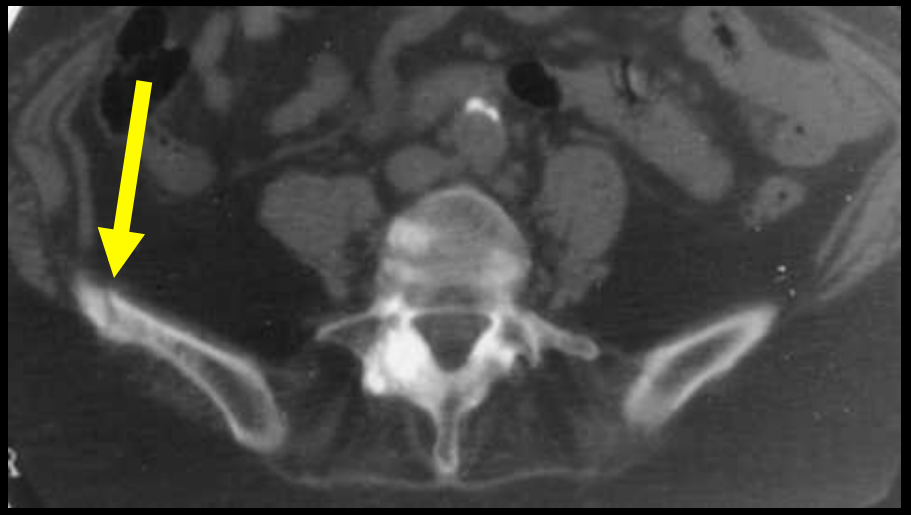


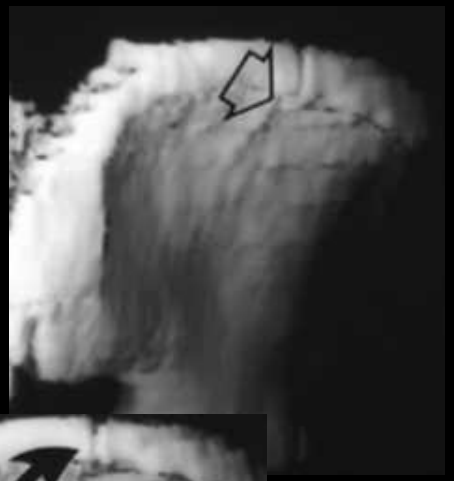


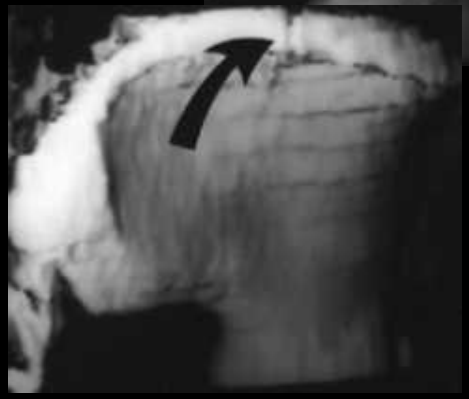
métastase ostéolytique de l'épiphyse fémorale et FIO "pathologique" ! ! !
(carcinome bronchique)

Mr Coh.

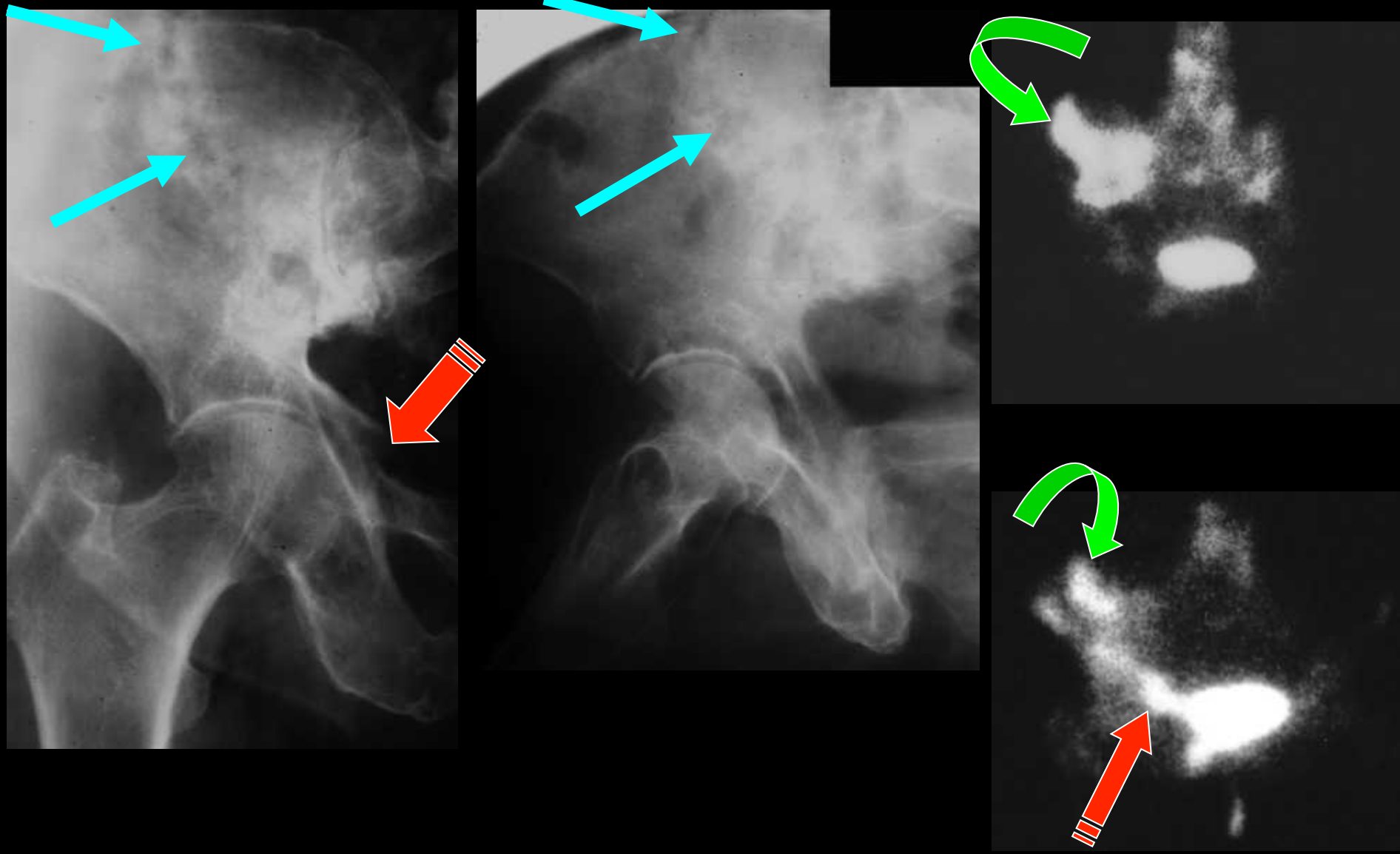




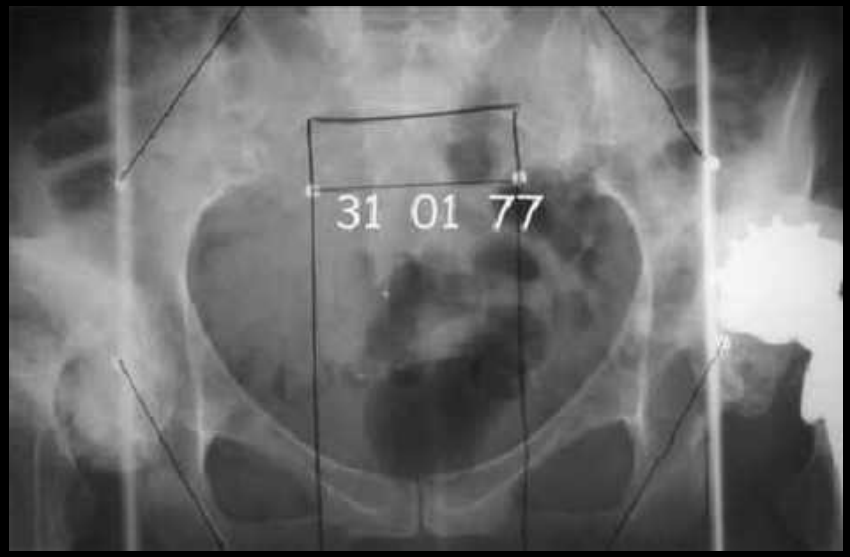


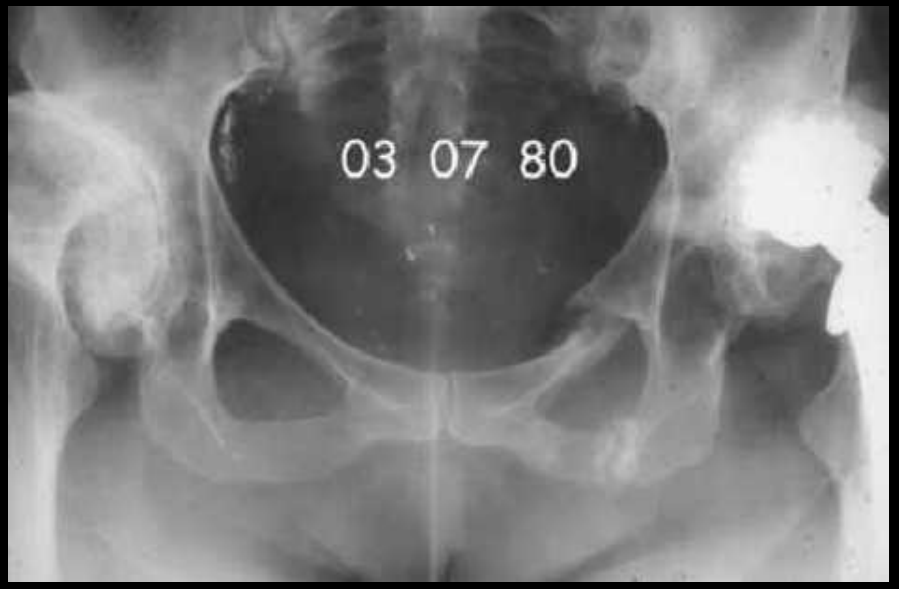


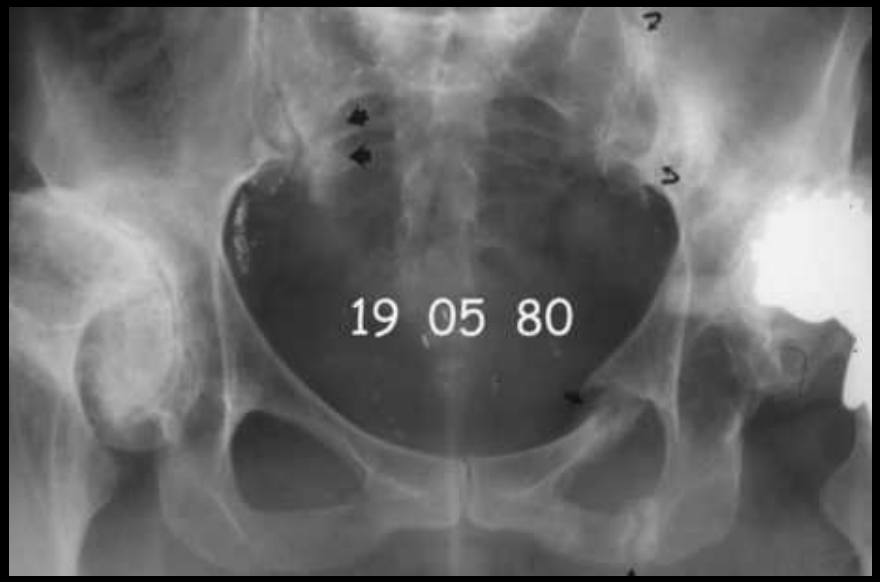
FIO aile iliaque droite



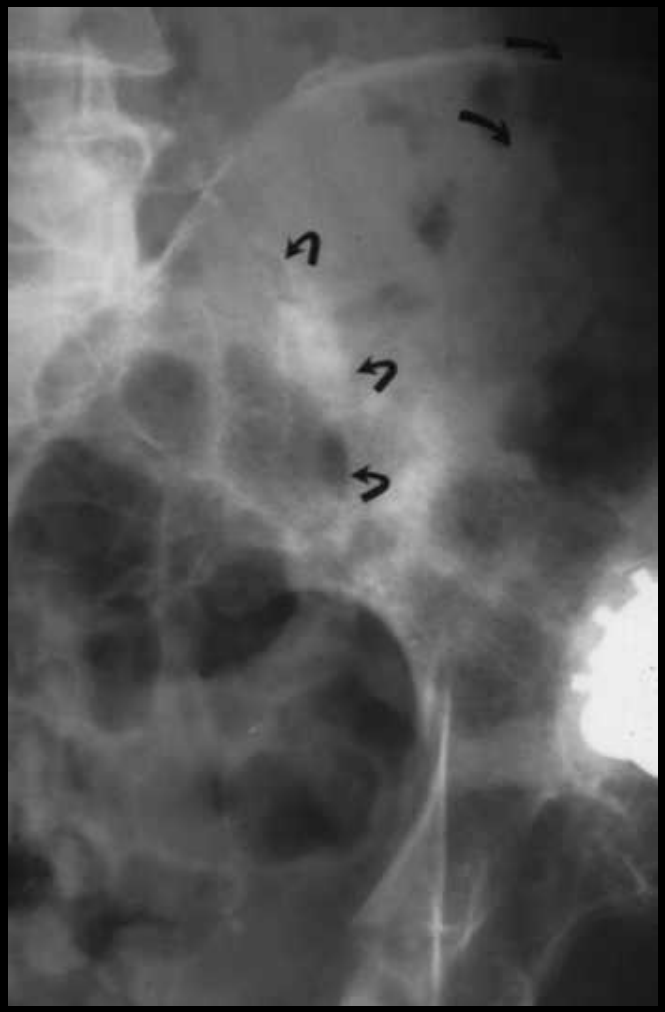
FIO aile iliaque droite étendue et FIO des branches pubiennes homolatérales

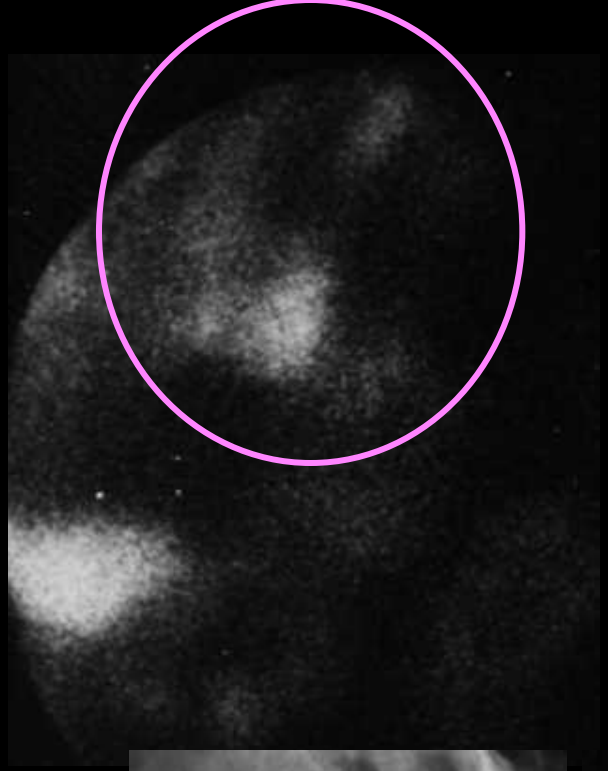




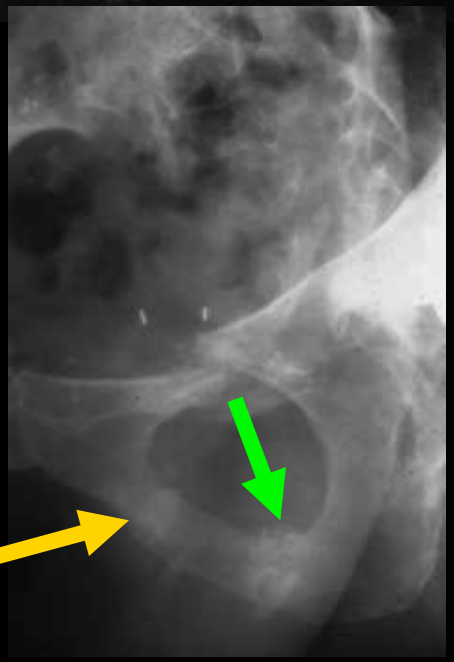


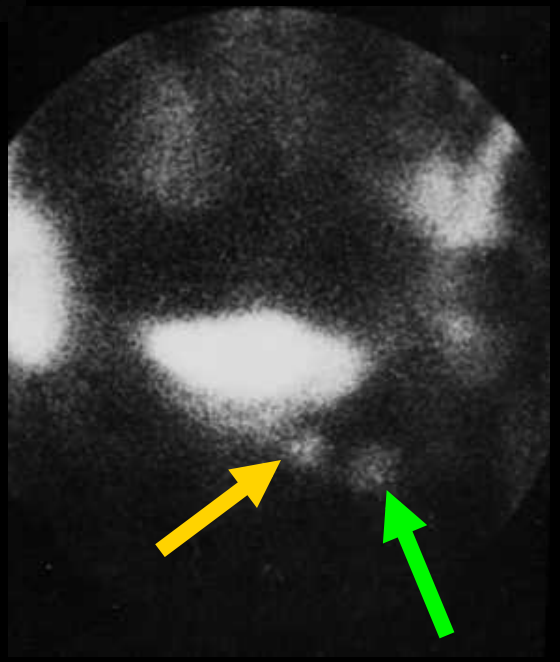
Mme Stru… 1



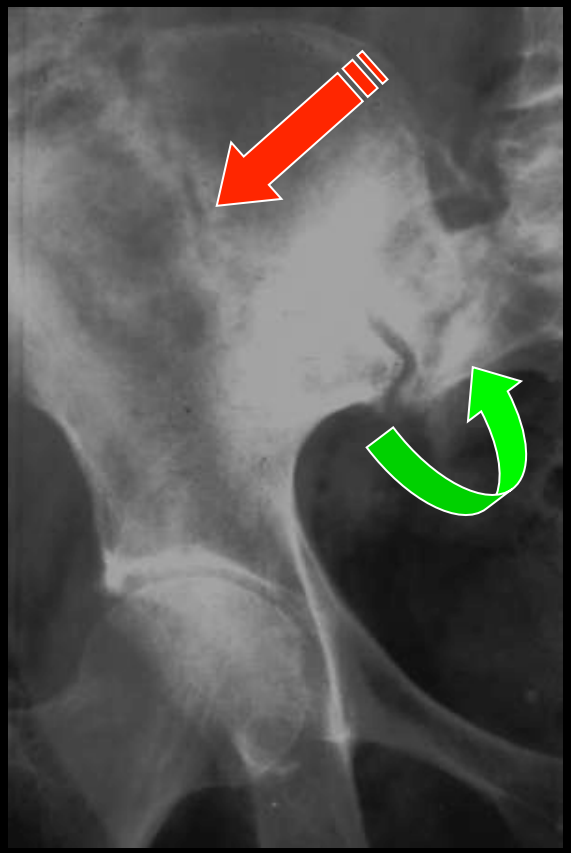


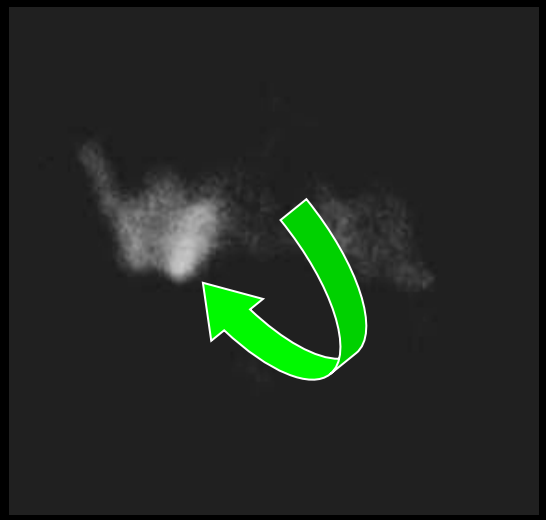
Mme Stru… 2

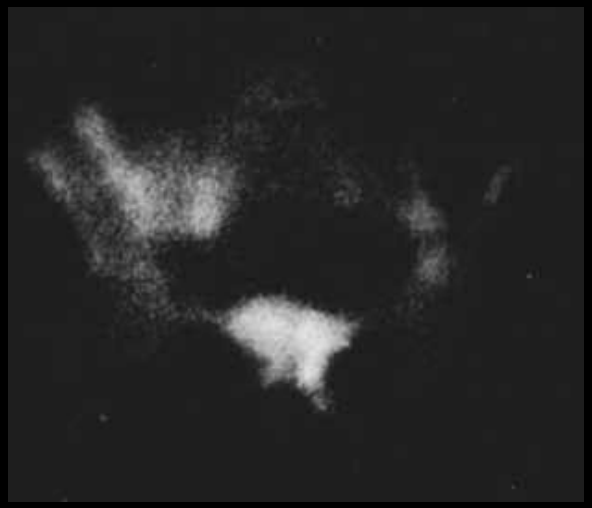


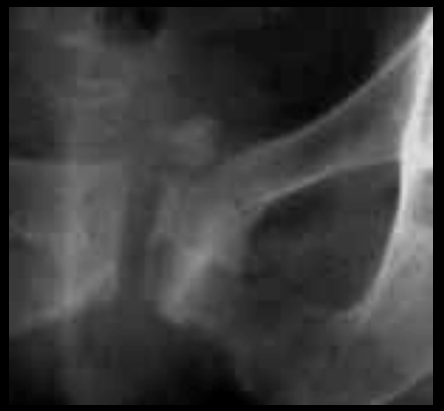


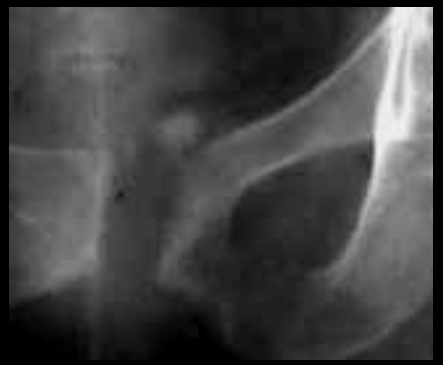
FIO aile iliaque gauche et branches pubiennes post radiques





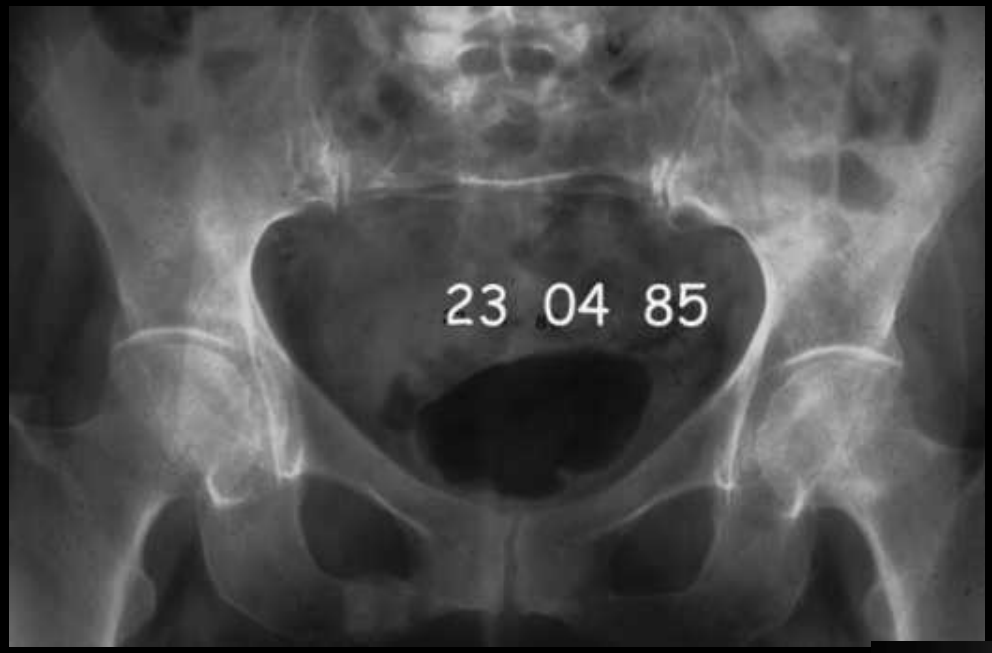


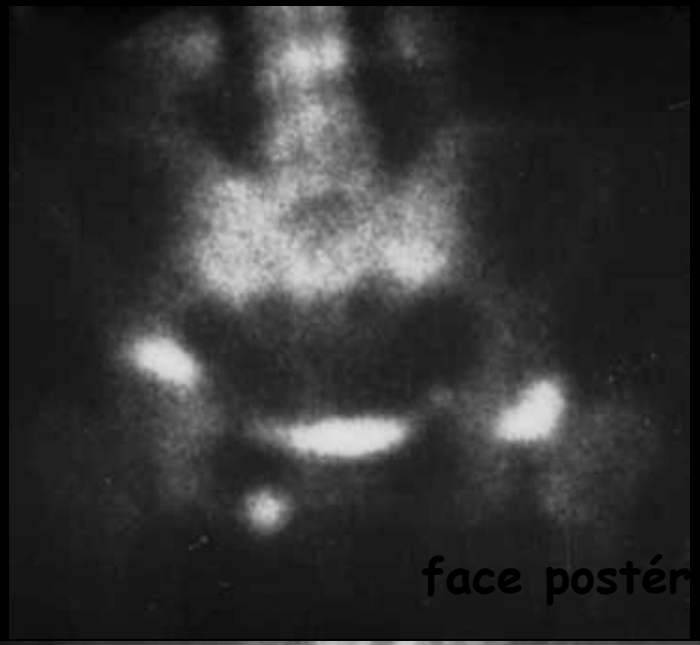


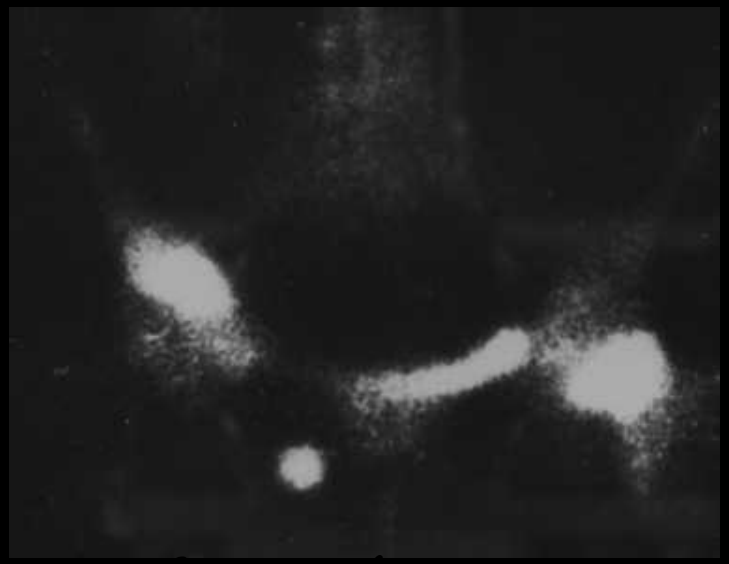


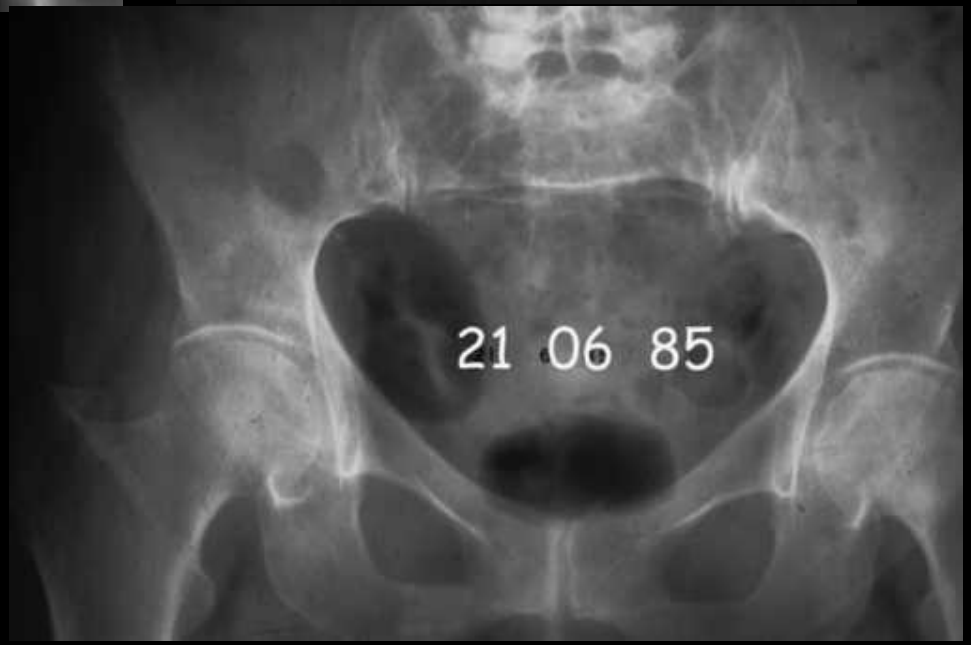
FIO aile iliaque droite , hemi sacrum droit ,para symphysaires gauches

Mme WEY….



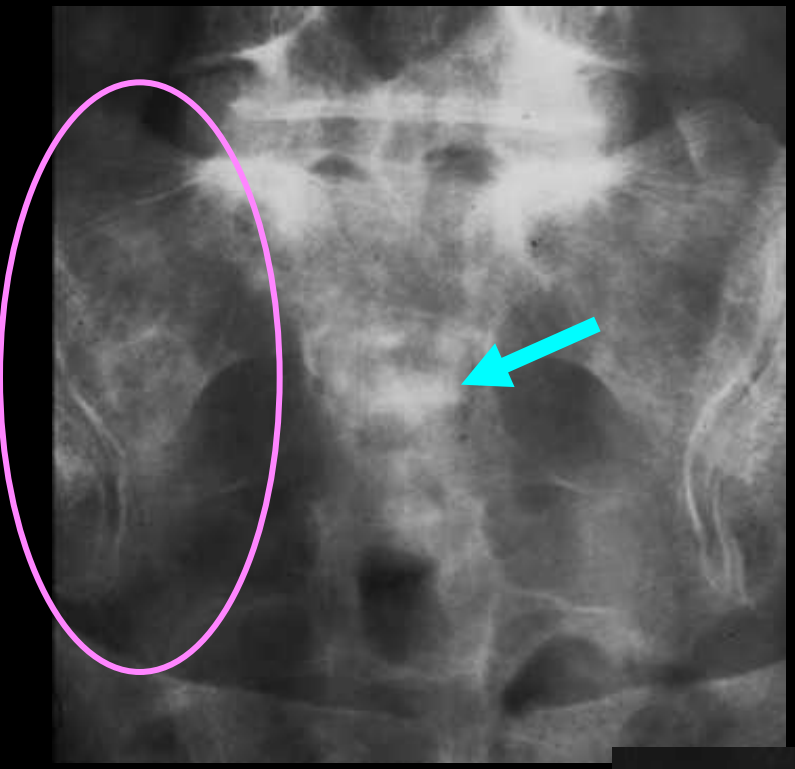


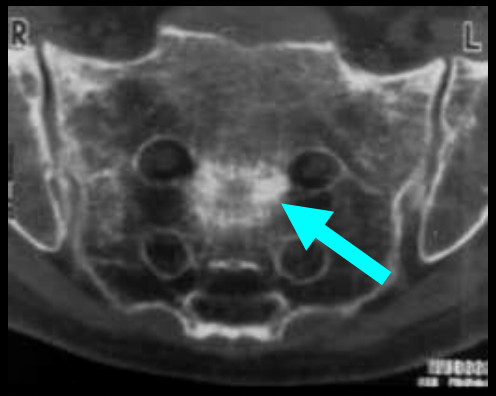


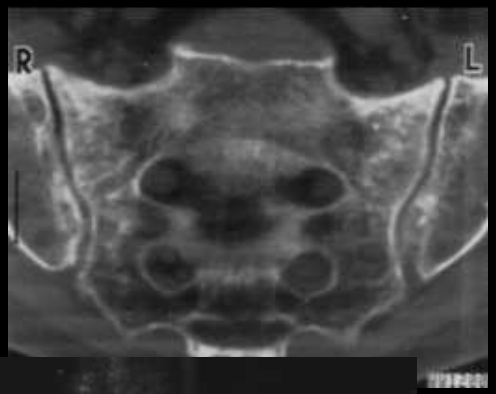


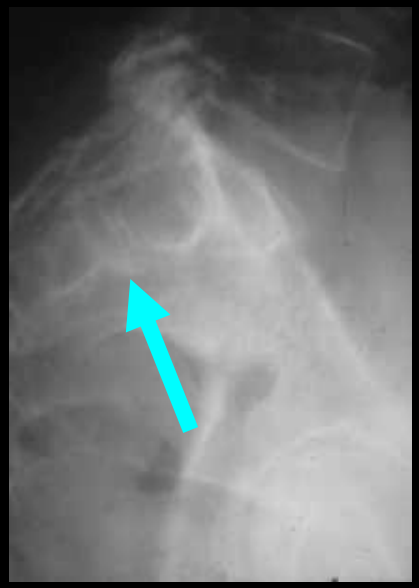
Mme WAG….

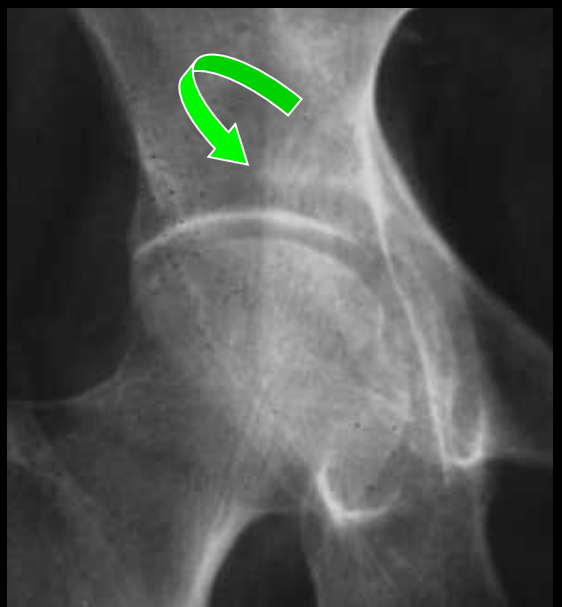
combien de FIO ?

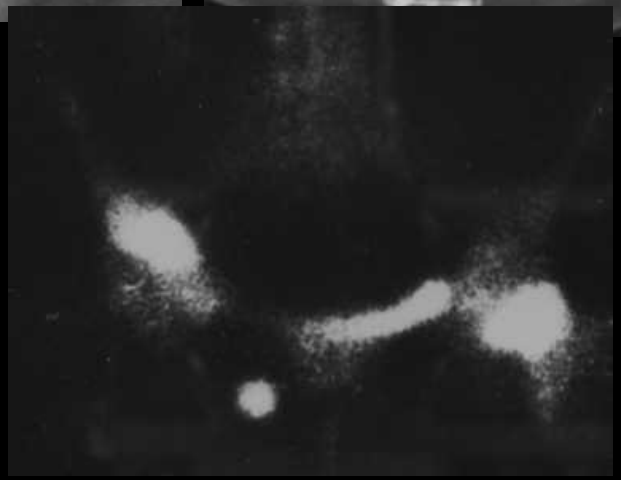


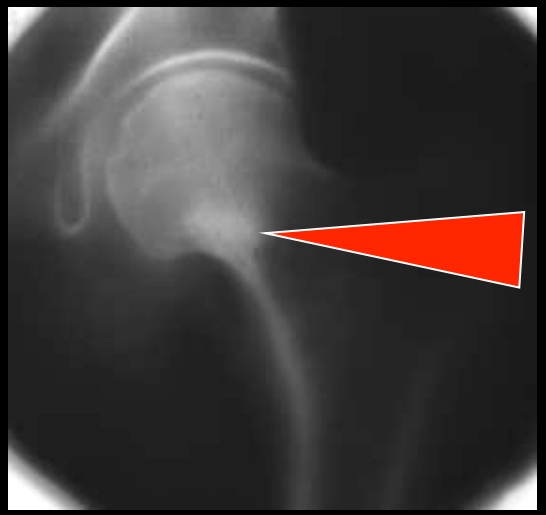




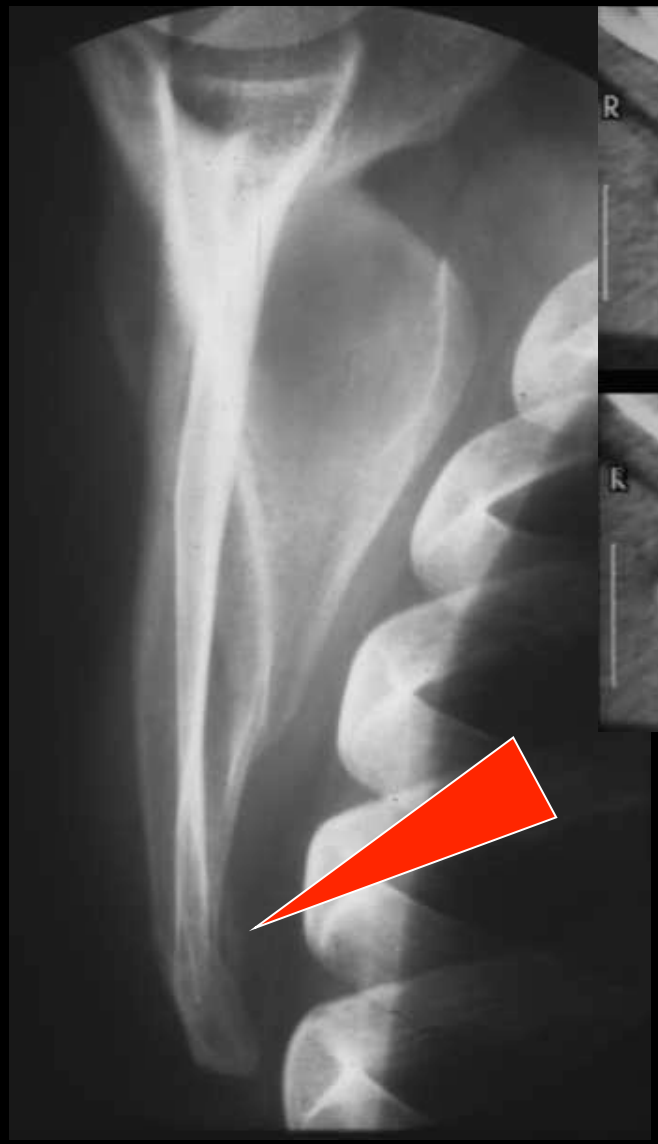


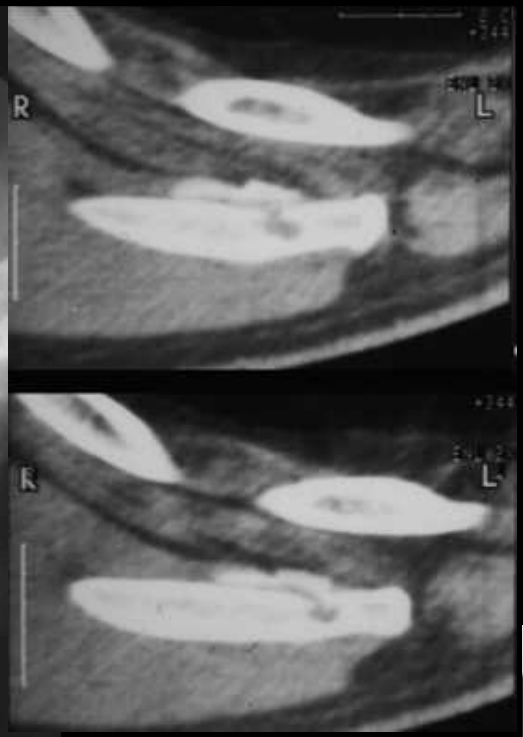


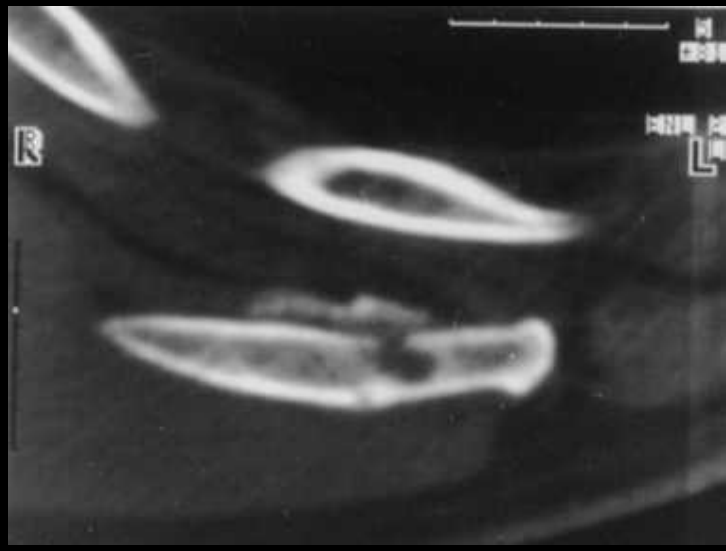


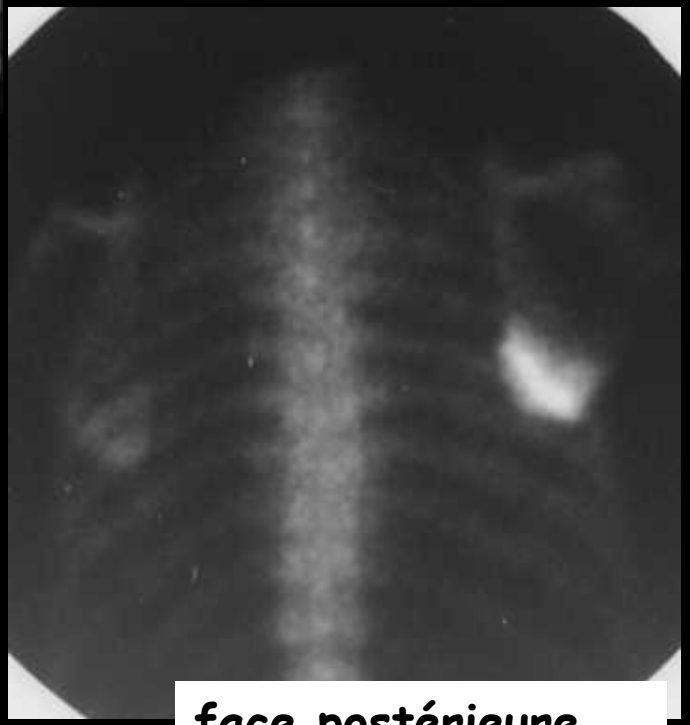


FIO sacrum en H, toit du cotyle D , col fémoral G, branche ischio pubienne D



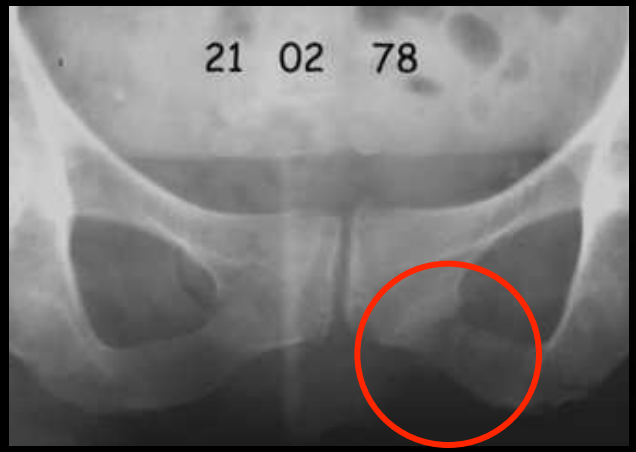


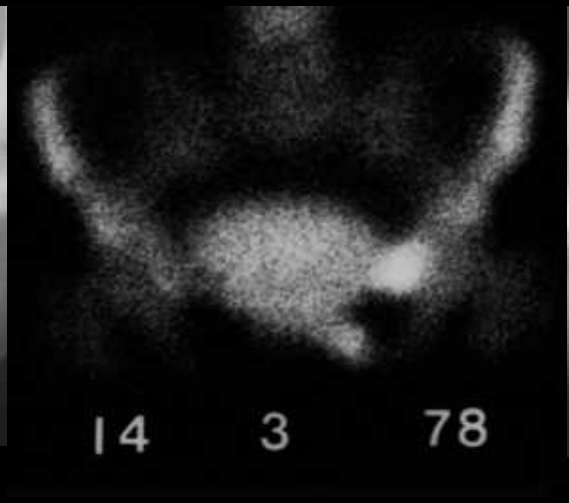


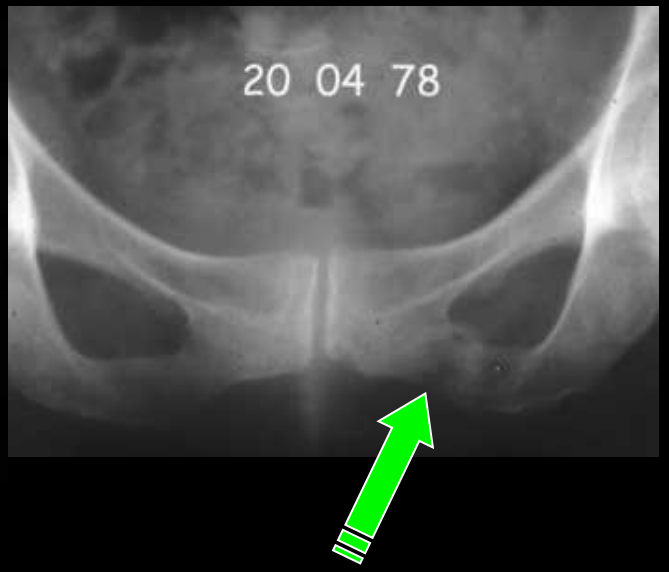


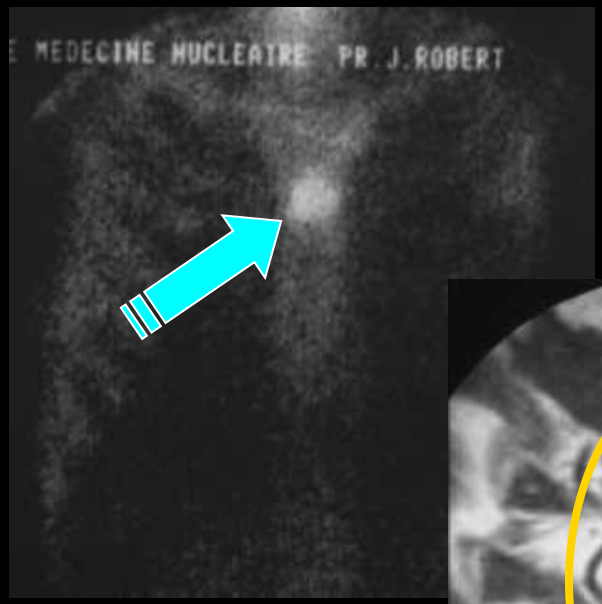
FIO pointe de l'omoplate droite

face postérieure

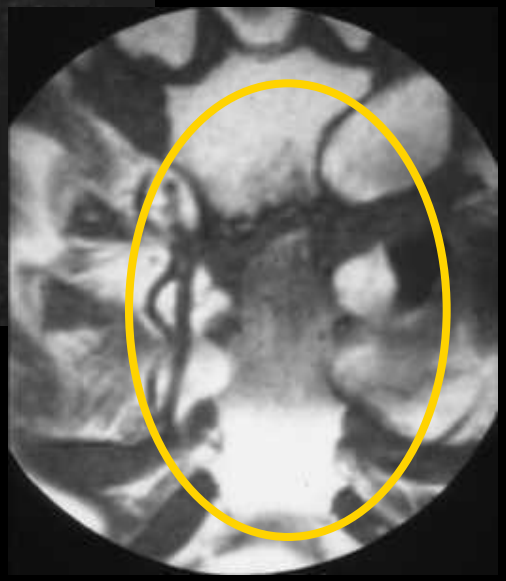


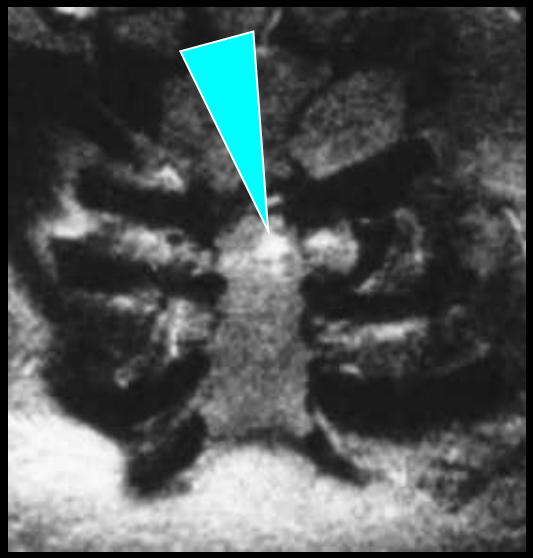


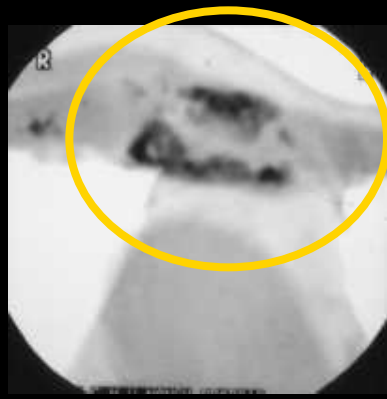


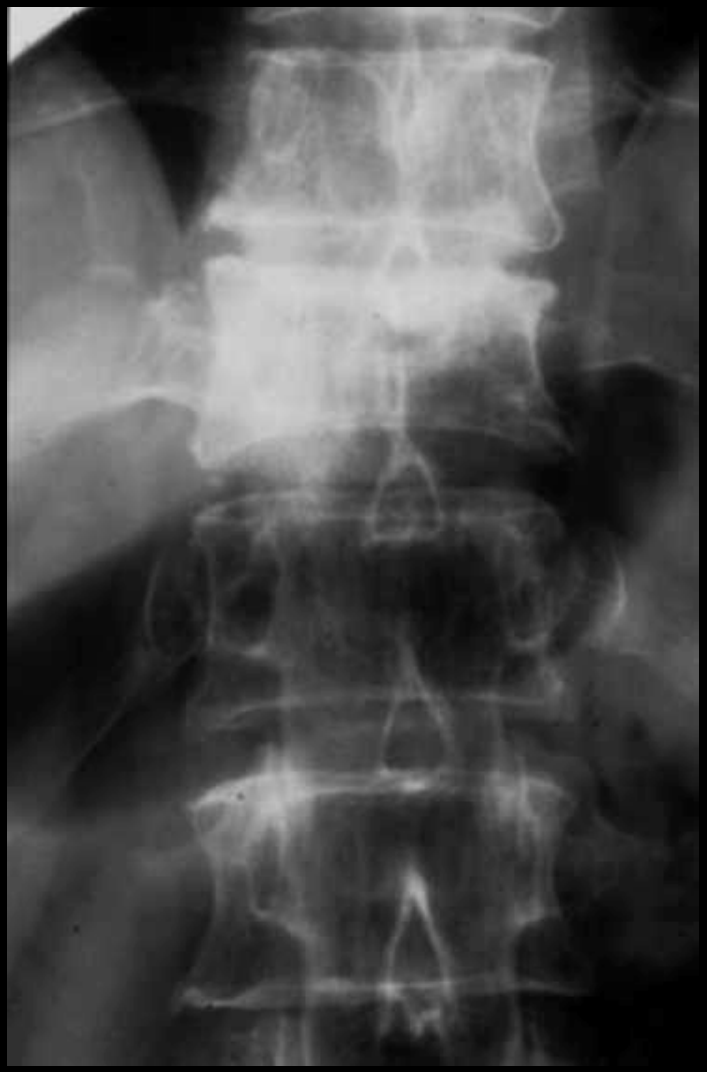


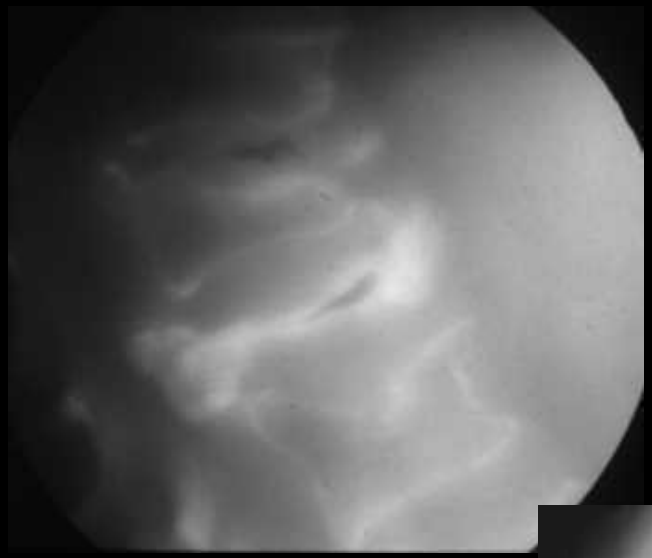
FIO du sternum et des branches pubiennes

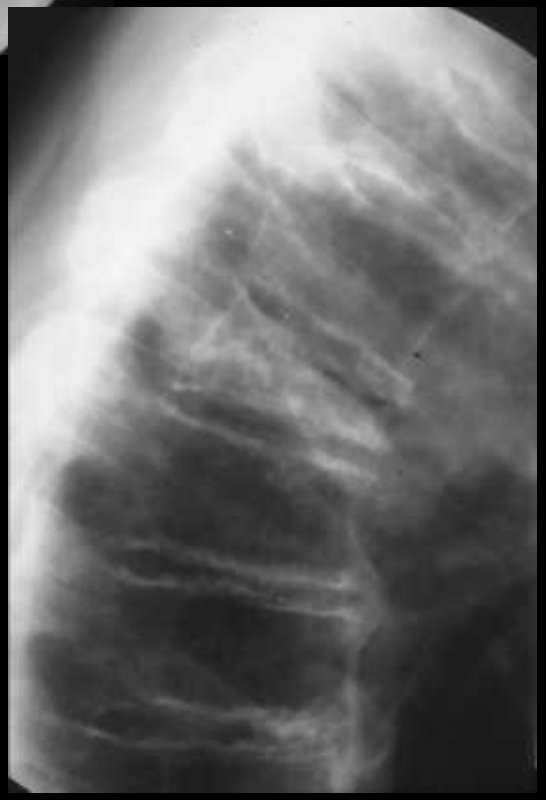








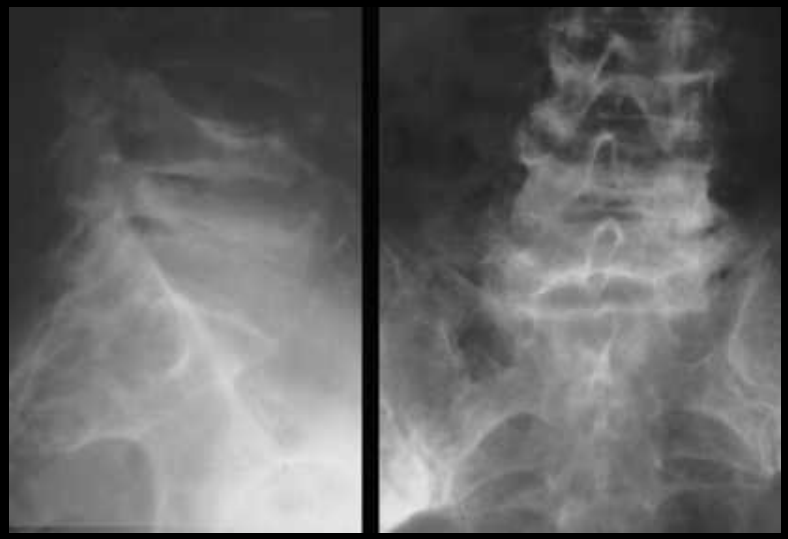


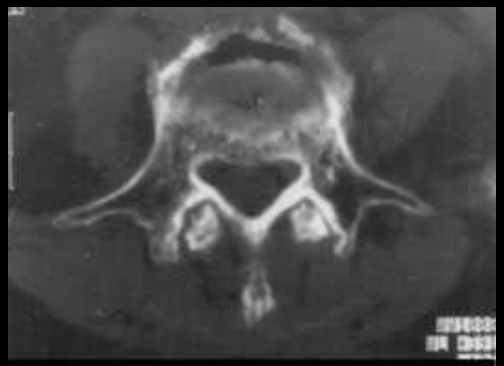


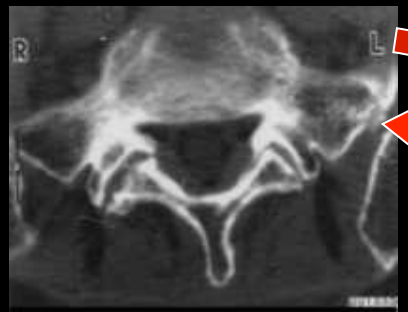
vacuum phenomenon » B. Maldague

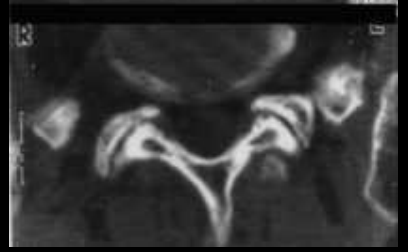
intrasomatique

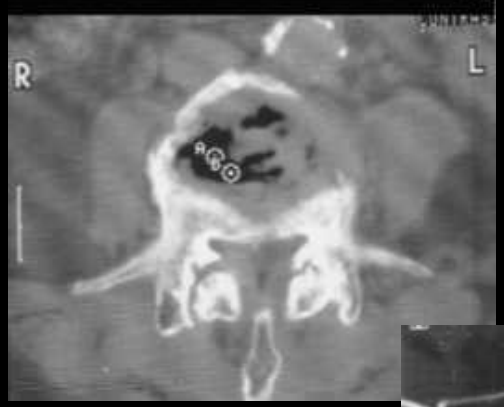
ostéonécrose vertèbrale

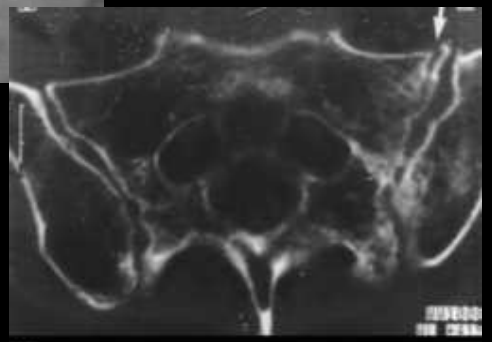


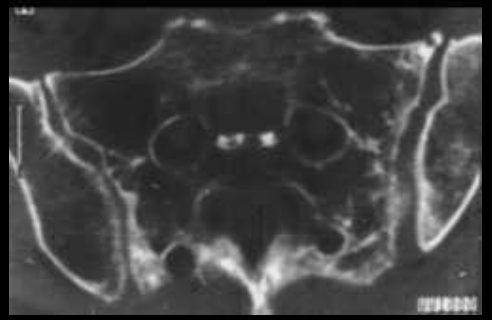












FIO du sacrum et ostéonécrose de L4

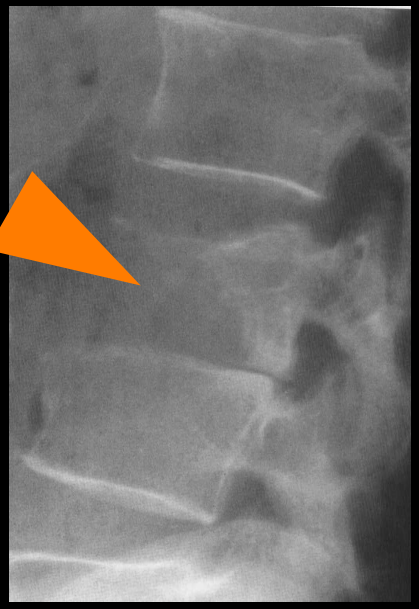
Diagnostic différentiel

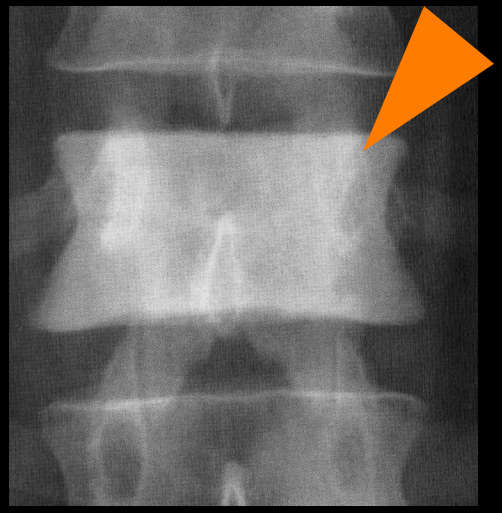
- Ostéopathies malignes
  - métastases osseuses
  - myélome
- Ostéopathies bénignes
  - ostéomalacie
  - hyperparathyroïdie primitive
  - ostéodystrophie rénale
  -
- Ostéoporoses régionales
  - immobilisation
  - algodystrophie

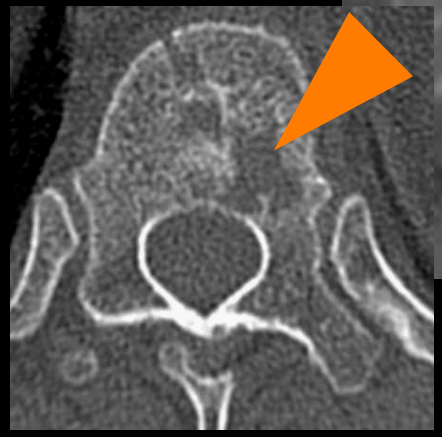
1. Ostéopathies malignes

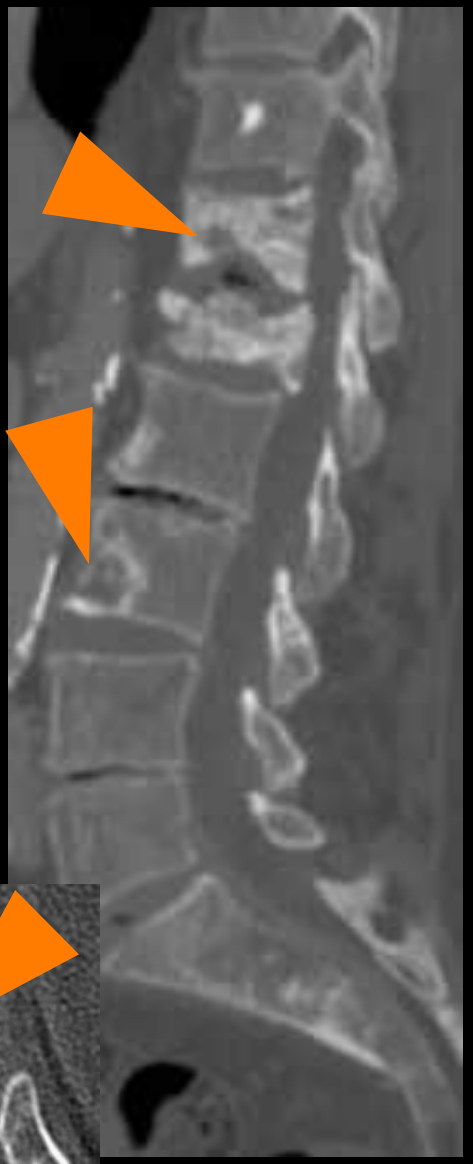
a) métastases osseuses :

os hétérogène
images lytiques ou condensantes
lyse corticale
lyse pédiculaire (aspect de vertèbre borgne)







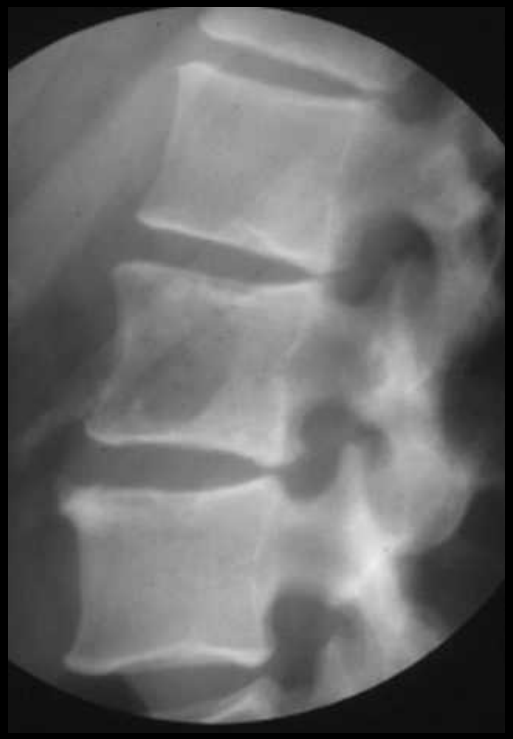


1. Ostéopathies malignes

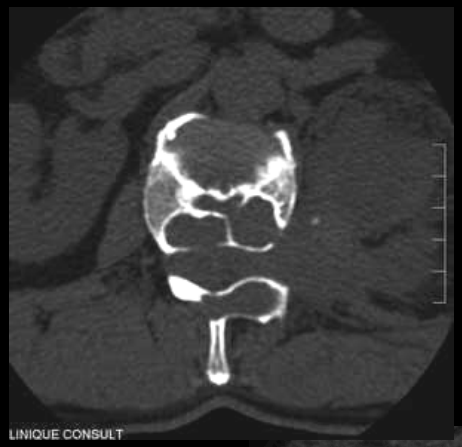
b) myélome (plasmocytome)

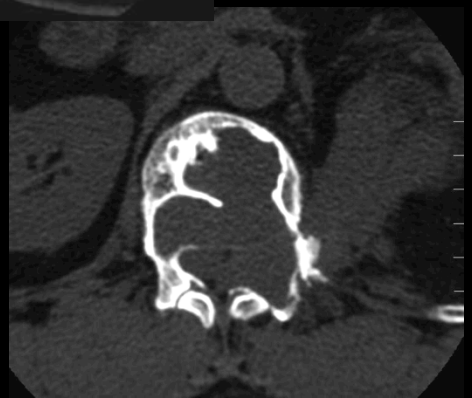
multiples lésions ostéolytiques à l'emporte pièce

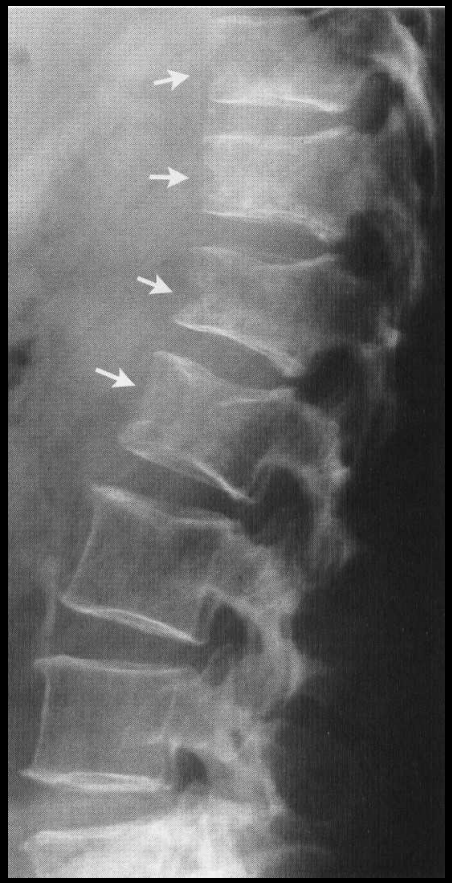
parfois ostéopathie décalcifiante diffuse:
"ostéoporose à VS élevée"

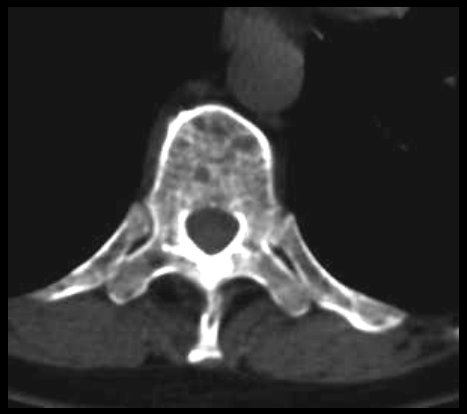


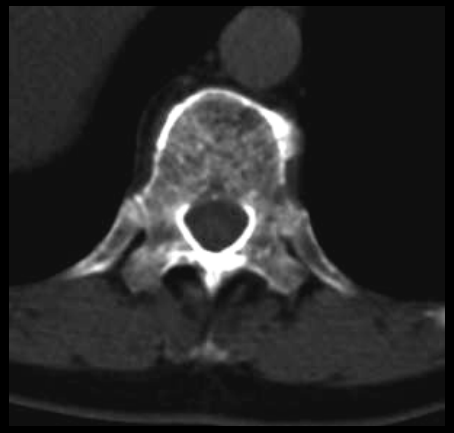
plasmocytomes
"solitaires''

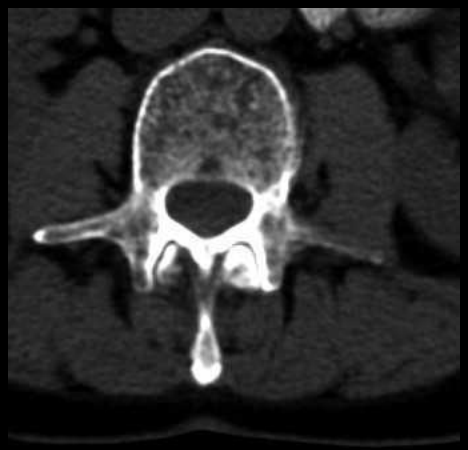












ostéopénie diffuse; myélomatose décalcifiante diffuse de Weissenbach et Lièvre

2. Ostéopathies bénignes

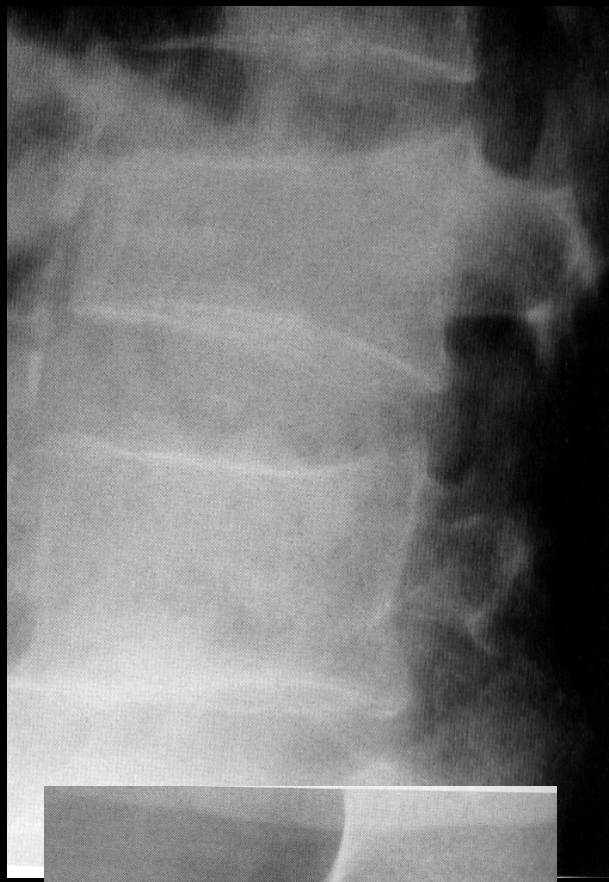
a) ostéomalacie

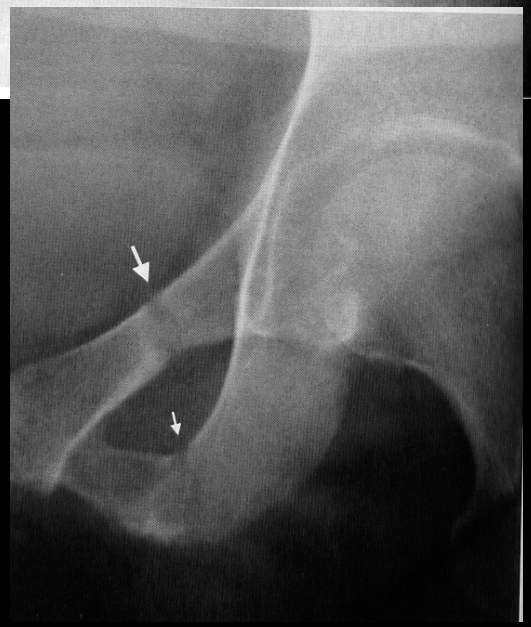
Rachis :

- raréfaction osseuse
- aspect flou des travées spongieuses (accumulation de matrice ostéoide non minéralisée) pseudo fractures stries de Looser Milkman matrice ostéoides en lieu et place de microfractures

Squelette appendiculaire :

pseudofractures de Milkman ou zones de Looser (85 % des cas) avec bandes radiotransparentes à direction perpendiculaire à l'axe de l'os, avec rupture de la corticale.



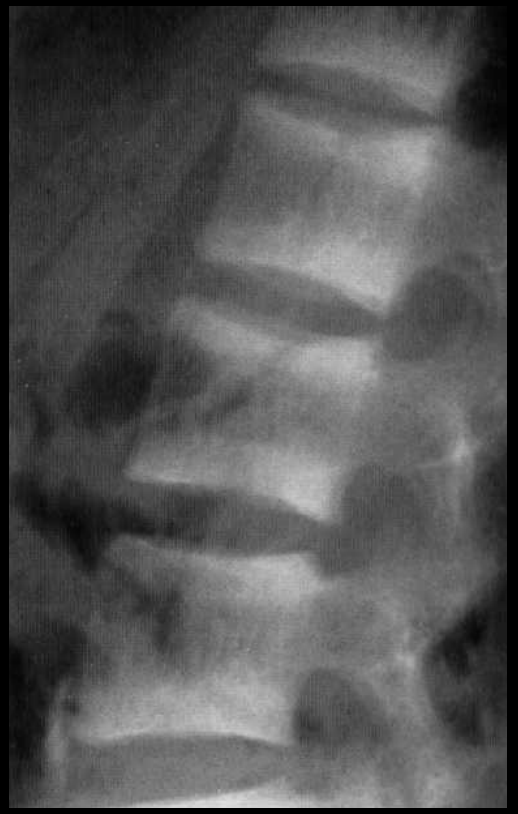


2. Ostéopathies bénignes

b) hyperparathyroidie primitive

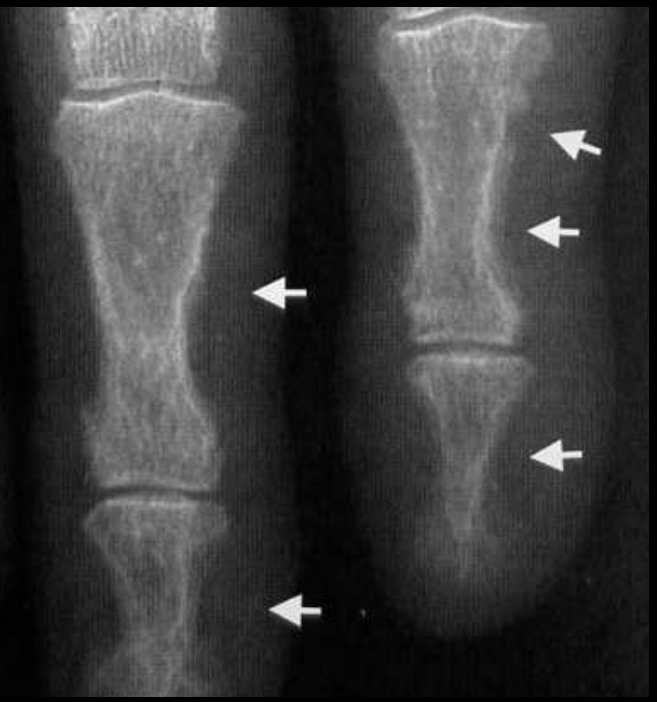
Résorption osseuse sous-périostée et sous-chondrale

c) ostéodystrophie rénale



vertèbres "en maillot de rugby"

"rugger jersey spine"



résorption sous périostée du bord radial de P2 des 2 et 3ème doigts

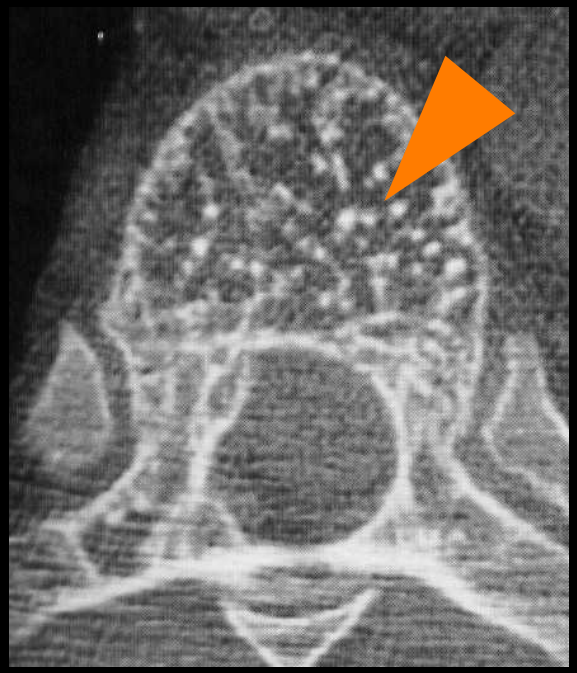
résorption et géodes des houppes phalangiennes

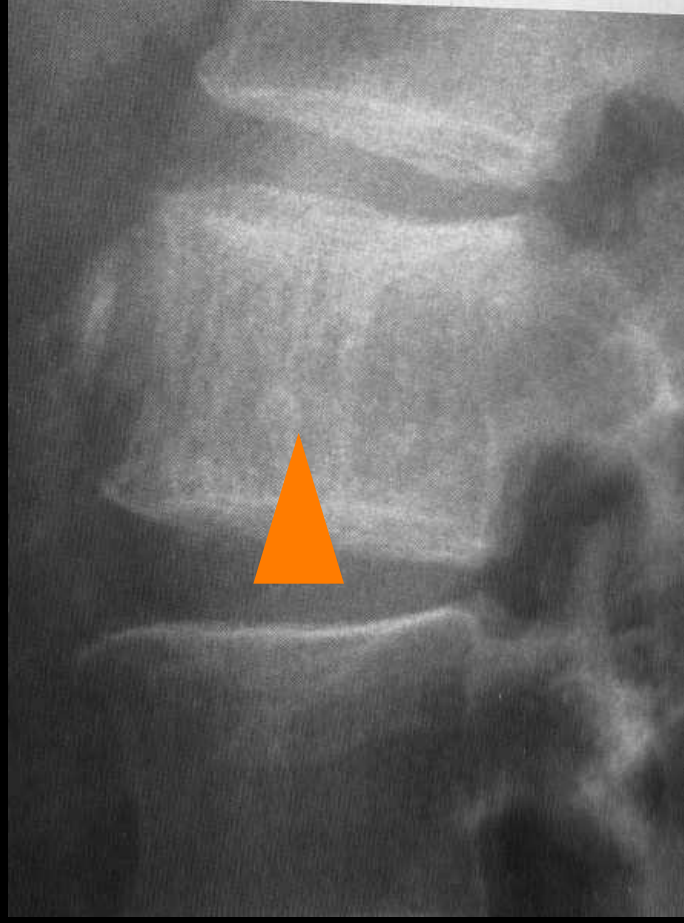
résorption de la lamina dura dans les fosses alvéolaires des maxillaires

2. Ostéopathies bénignes

d) hémangiome vertébral

striations verticales marquées du corps vertébral +/- étendues à l'arc postérieur





Traitements de l'ostéoporose post-ménopausique

- **lutte contre les facteurs de risque :**
  - ✓apports calciques adaptés
  - ✓activité physique régulière ; arrêt du tabac ..

- **médicamenteux :**
  - ✓oestrogènes : préviennent la perte osseuse et diminuent le risque fracturaire de 50%
  - ✓modulateurs sélectifs du récepteur des oestrogènes (SERM)

    raloxifène®
  - ✓ranélate de strontium ,tériparatide….
  - ✓calcium et vitamine D
  - ✓biphosphonates : inhibent la résorption osseuse
  - ✓dérivés synthétiques de la PTH