

Tumeurs osseuses

malignes

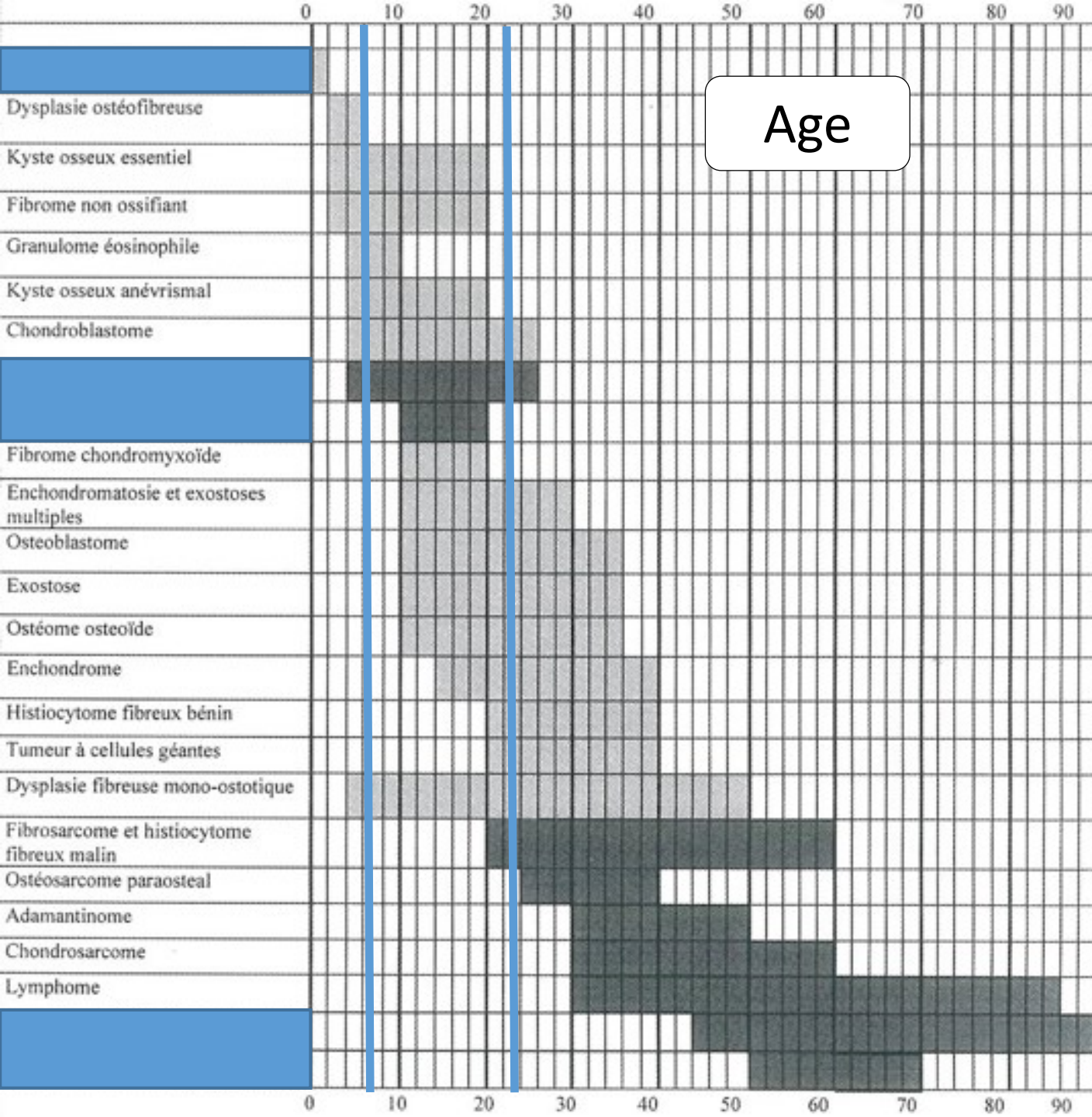


A. Larbi
L. Sibille

Tumeurs osseuses malignes primitives

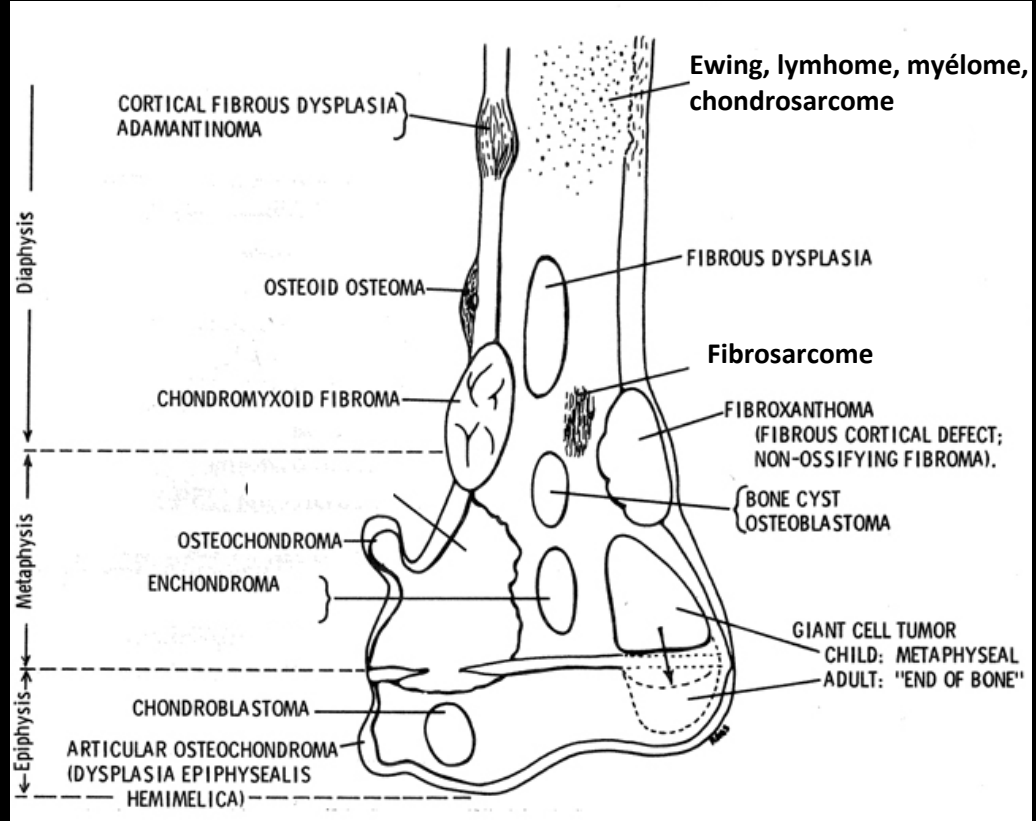


- 0,2-1% des cancers
- 50% myélome multiple
- Ostéosarcome > chondrosarcome > fibrosarcome et HFM / Ewing
- Associations à haut risque:
 - Enchondrome et chondrosarcome
 - Rétinoblastome héréditaire et ostéosarcome
 - S^d de Rothmund-Thomson (poïkilodermie) et ostéosarcome



**Douleurs /
tuméfaction**

**Sd
inflammatoire**



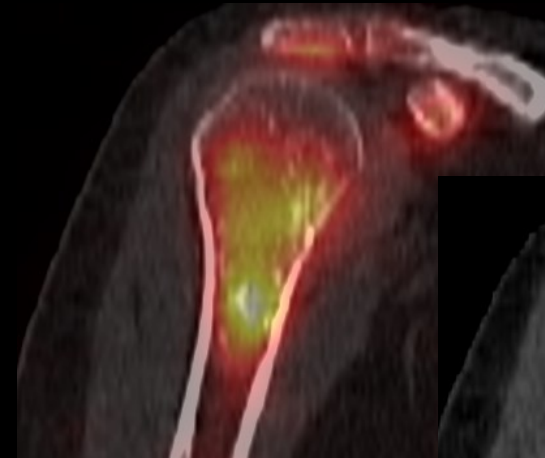
Madewell JE, RCNA 1981; 19:715

Localisation

Tumeurs osseuses malignes primitives

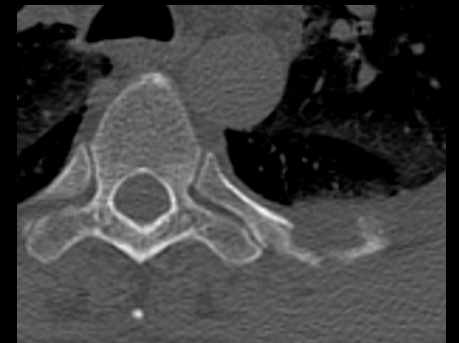
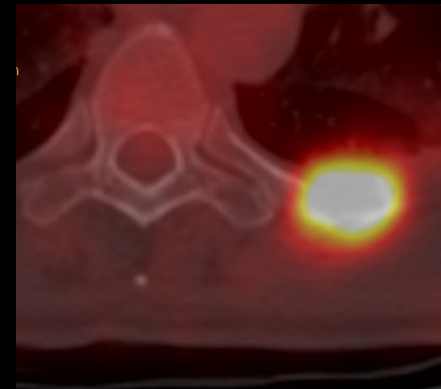
- **Malin** avec aspect non agressif:

- Osteosarcome télangiectasique
- Chondrosarcome bas grade



- **Benin** avec aspect agressif:

- Ostéomyélite, TCG, histiocytose, ostéoblastome, kyste osseux aneurismal, angiome...



BENIN	Caractéristiques	MALIN
< 3 cm	TAILLE	> 6cm
Epiphyse	SIEGE	Métaphyse - Diaphyse
Nettes	LIMITES	Mal définies
Géographique IA/B	OSTEOLYSE	Géographique IB/C; Mité II; Perméative III
Corticale normale ou épaissie: - sans - unilamellaire continue Corticale détruite: - coque continue épaisse	REACTION PERIOSTEE	Corticale normale: - plurilamellaire continue/discontinue/spiculée Corticale détruite: - discontinue unilamellaire (soulevée avec triangle de Codman)/plurilamellaire
Limitée	EXTENSION	Importantes érosions endostées (scalloping) Rupture corticale Envahissement parties molles
Lente	EVOLUTION	Rapide



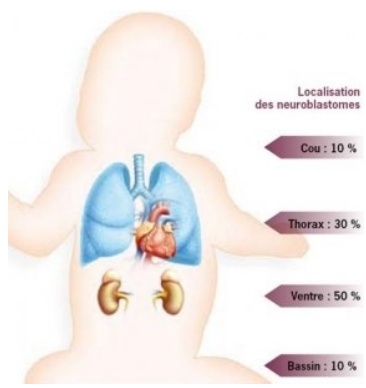
**KEEP
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It's only a
**SOCRATIVE
QUIZ**

QUIZZ 1

CPDRDEZ3Z



STUDENT



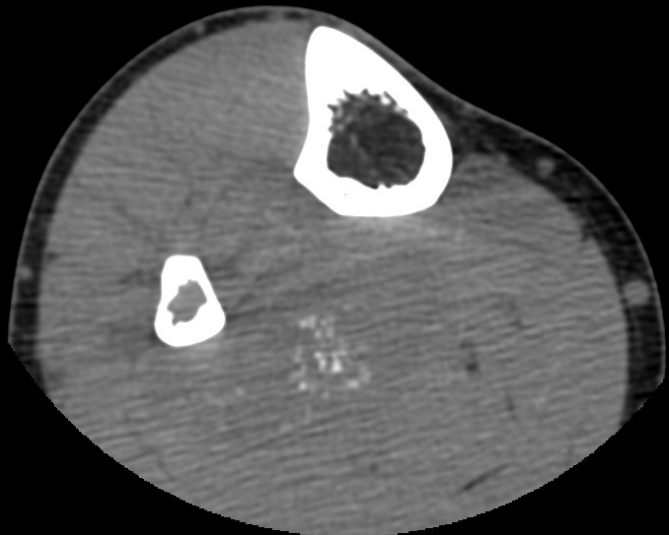
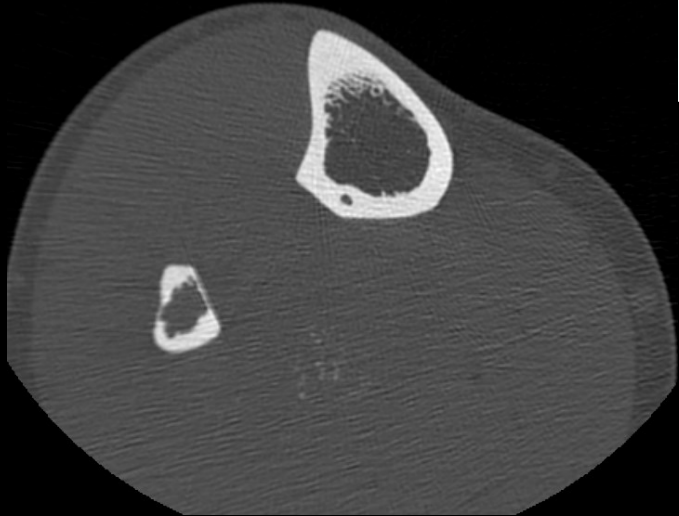
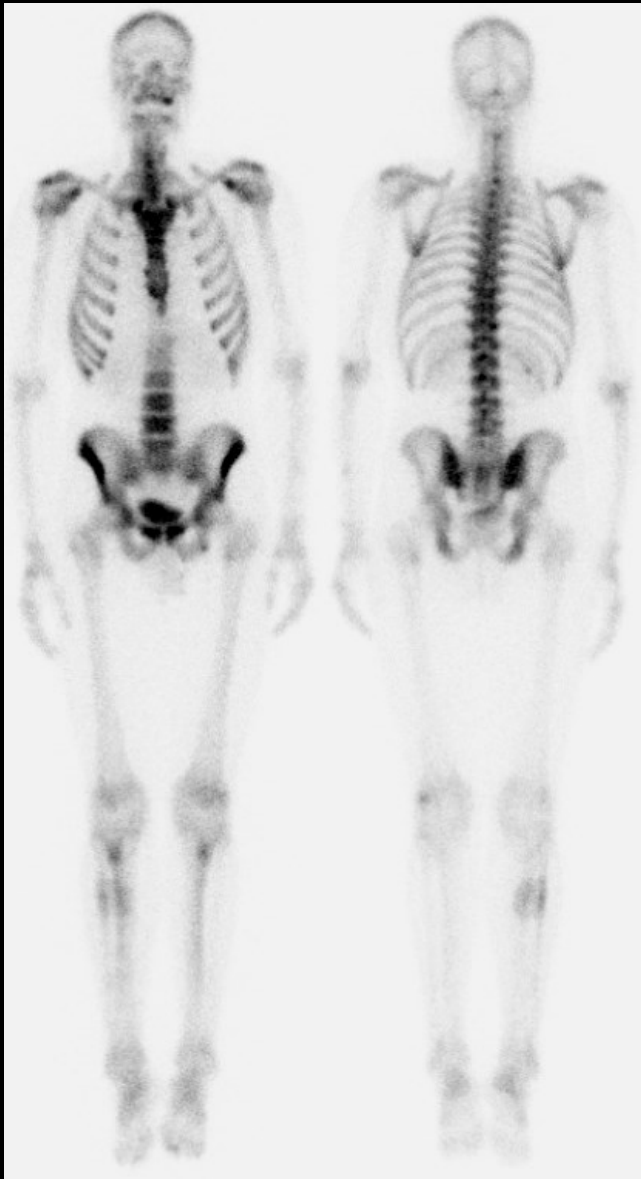
Métastase + <5 ans: Neuroblastome (SN Σ)

- Nourrisson, jeune enfant
- Retropéritone (surrénale...) >> thoracique >cervical
- Métastases: gg, os, foie, peau, dure-mère...
- Dg: clinique variable + métabolites urinaires des catécholamines
- Imagerie:
 - Rx
 - Echo/ TDM
 - Scinti MIBG / TEP FDG et F-DOPA?
 - IRM: extension intra-rachidienne
- Dg différentiel:
 - Néphroblastome, hepatoblastome, tumeurs germinales

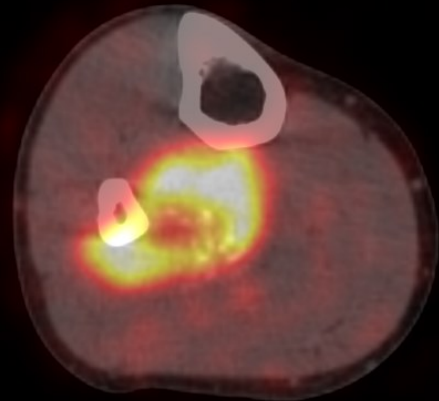


Homme, 22 ans, dl jambe droite

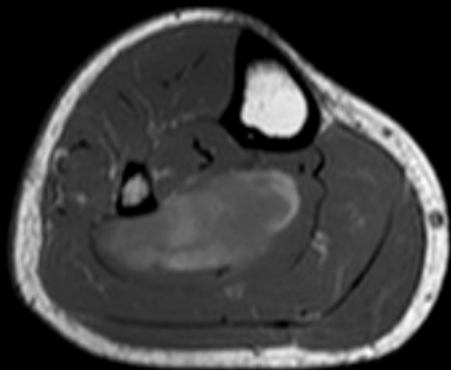
SO/ TDM



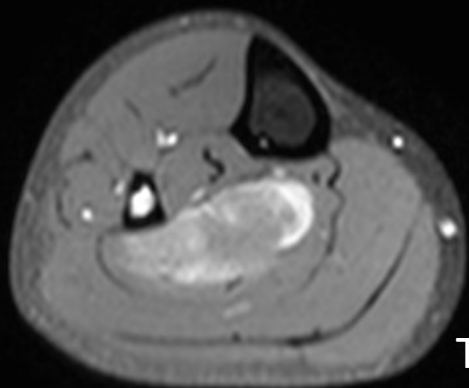
Homme, 22 ans, dl jambe droite



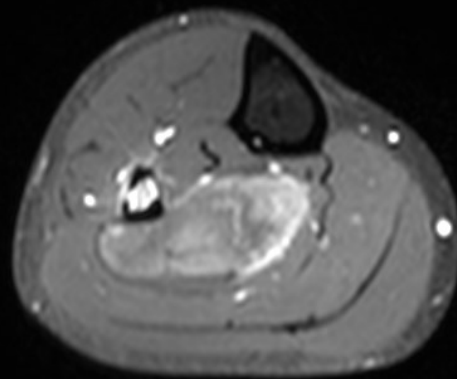
FDG



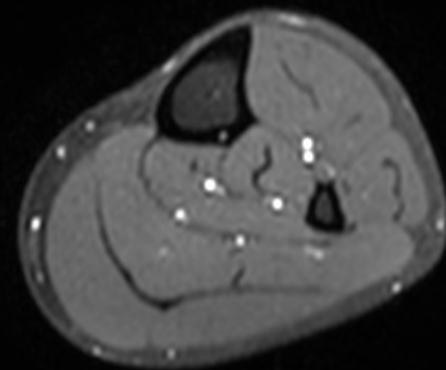
T1



T1 FS



IRM/ FDG



T1 FS Gd



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QUIZ**

QUIZZ 2

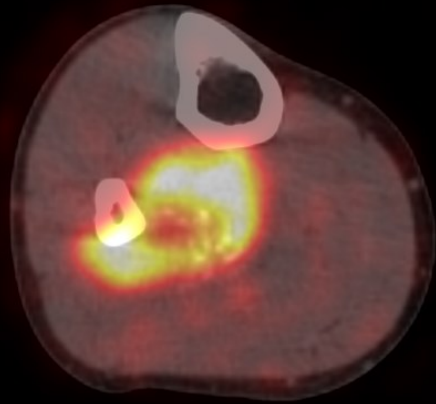
CPDRDEZ3Z



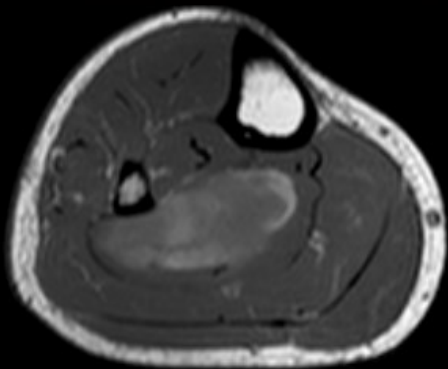
STUDENT

Homme, 22 ans, dl jambe droite

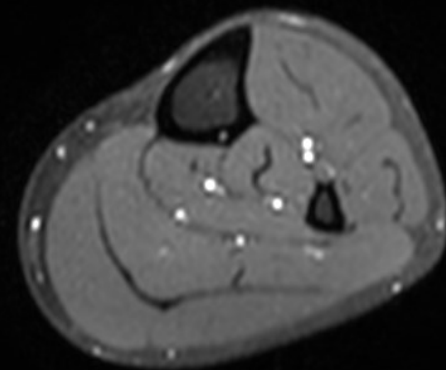
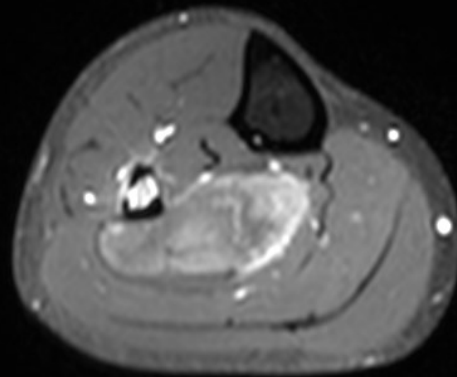
IRM/ FDG



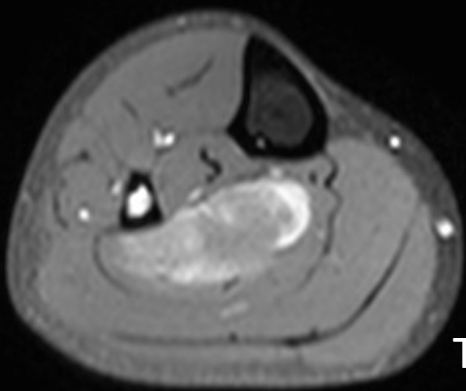
FDG



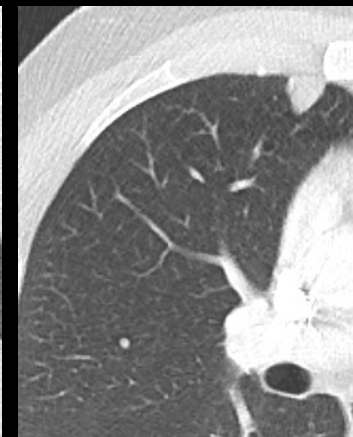
T1



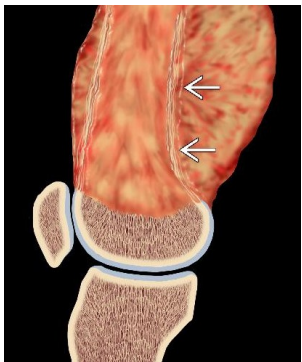
T1 FS Gd



T1 FS

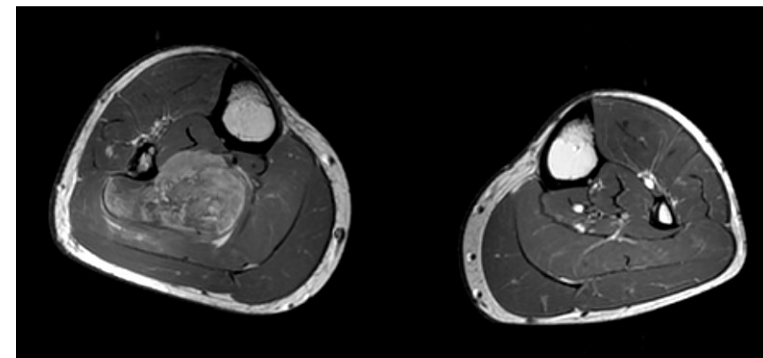


→ Sarcome d'Ewing



Sarcome d'Ewing

- 13 ans [5-30ans]
- Masse douloureuse
- Os longs (diaph/metaphyse) > os plats
- Métastases: pulmonaire, MOH
- Imagerie:
 - Rx/TDM (meta pulm): destruction osseuse perméative, **pas de matrice** (mais réaction osseuse sur l'os mais pas dans les tissus mous), réaction périostée en « peau d'oignon », tissus mous+++
 - IRM++: hypo T1, Gd+ hetero, œdème
 - TEP FDG: fixation+++, >scinti os pour les meta
- Dg différentiel:
Ostéomyélite, ostéosarcome (matrice osseuse), histiocytose, meta, lymphome







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QUIZZ 3

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STUDENT



→ ostéosarcome



Ostéosarcome: conventionnel (80%)

intra-medullaire, de haut grade

- **10-20 ans** (adulte > 60ans; secondaire)
- Masse douloureuse, **lésion agressive**
- **Métaphyse des os longs**; 50% autour du genou ou près de l'épaule
- Métastases: **pulmonaire** > gg et MOH (possible calcification des meta); skip metastase
- Imagerie:
 - Rx/TDM (meta pulm): destruction osseuse perméative, **matrice ostéoïde**, mixte, réaction périostée en « sunburst », interrompue, triangle de Codman, tissus mous (avec composante osteoïde)+++
 - IRM++: matrice osseuse hypo, Gd+ hetero, œdème, nécrose, parties molles
 - TEP FDG: fixation hétéro ++
 - Scinti os
- Biopsie: pas dans nécrose ou matrice osseuse mature/ résection trajet ponction
- Dg différentiel:

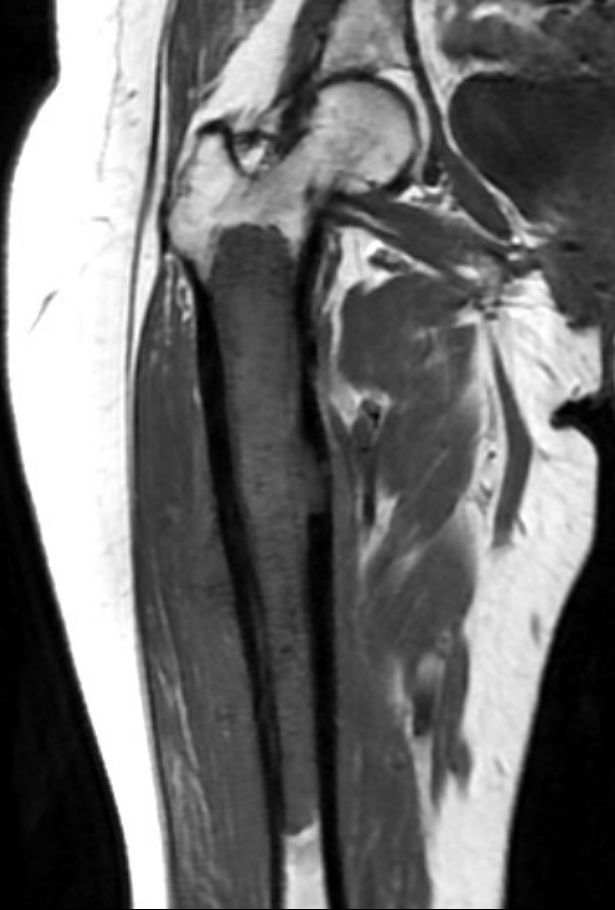
Sarcome d'Ewing, ostéoblastome, histiocytome fibreux malin, (myosite ossifiante)



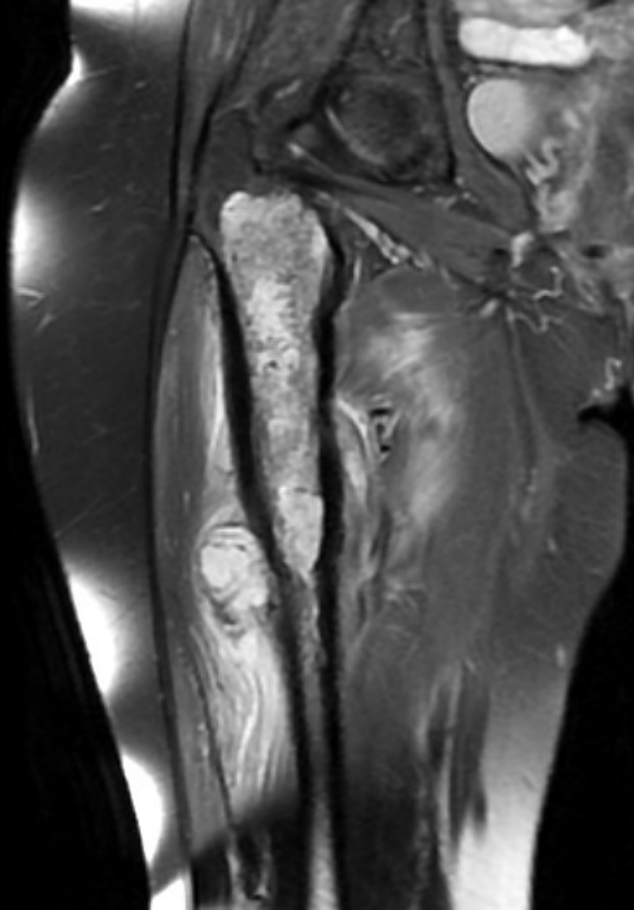


Femme, 56ans, douleurs cuisse droite

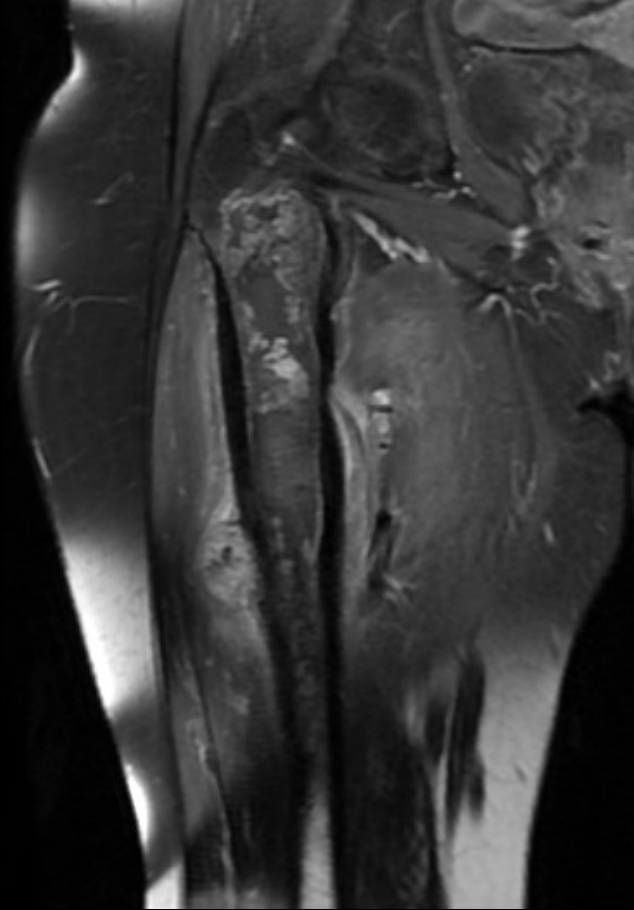
SO/IRM



T1



RHO FS



T1 FS Gd

Femme, 56ans, douleurs cuisse droite

Rx/TDM





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QUIZZ 4

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STUDENT

Femme, 56ans, douleurs cuisse droite

Rx/TDM



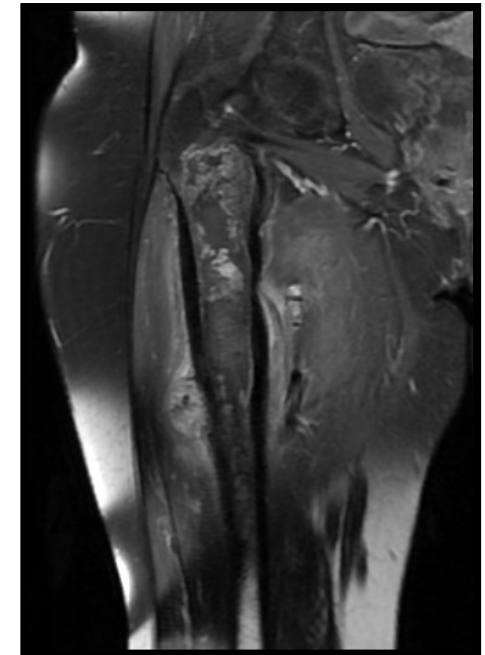
→ Chondrosarcome grade 3



Chondrosarcome: conventionnel (90%)

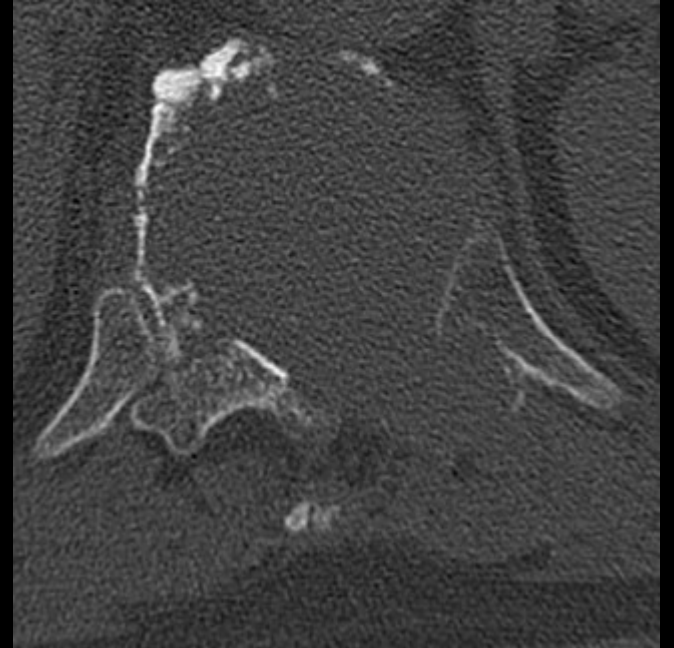
intra-médullaire, de bas grade

- 50-70 ans
- Primaire ou secondaire (enchondrome, enchondromatose, osteochondrome)
- Masse douloureuse
- Metaphyse > diaphyse > epiphyse: iliaque > femur prox > humerus prox > femur distal
- Métastases: pulmonaire, MOH
- Imagerie:
 - epiphysaire, >6cm, érosion endostée >2/3, déformation corticale, IRM Gd+ periph en flaque > sans Gd, évolution(disparition des Ca++)
 - Rx/TDM: matrice chondroïde (75%), lytique, scalloping important (2/3 en longueur ou en épaisseur)
 - IRM+++ : hypo T1 /muscle, hyper T2, Gd+ hetero, lobulé
 - TEP FDG: fixation +/-
 - Scinti os: hétéro
- Dg différentiel:
 - Enchondrome +++ (jamais epiphysaire)



Homme, 82 ans, paraparésie progressive des mb inf
ATCD dialyse

TDM

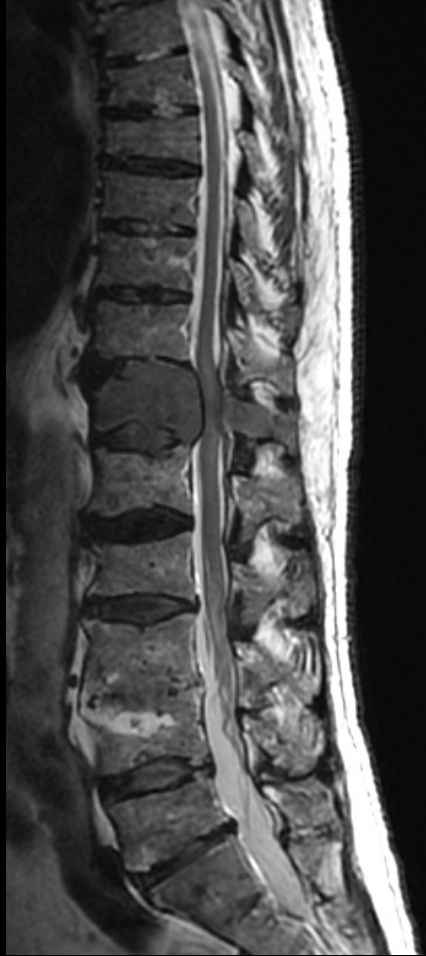


Homme, 82 ans, paraparésie progressive des mb inf
ATCD dialyse

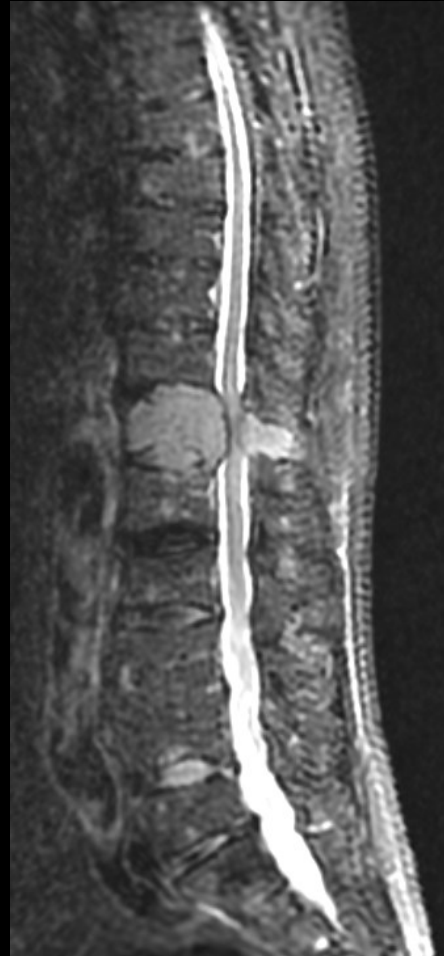
IRM



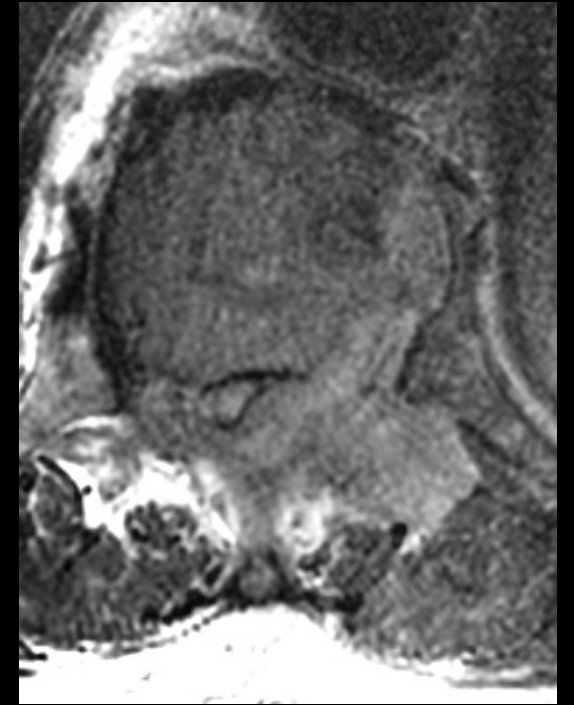
T1



T2

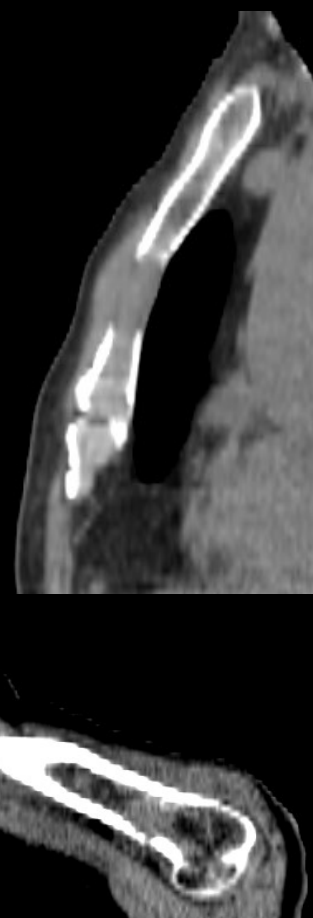
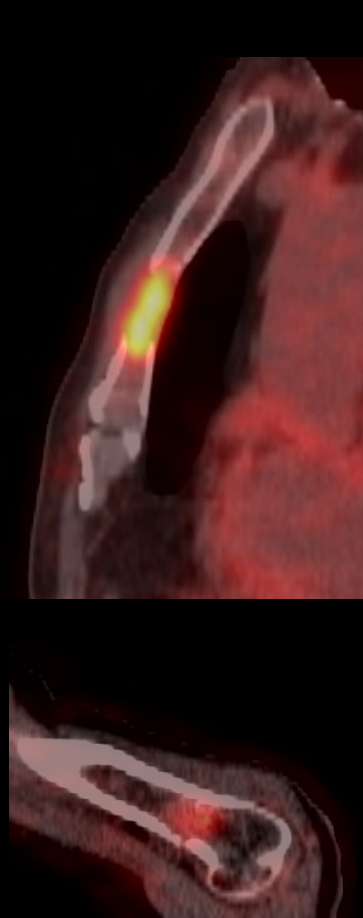
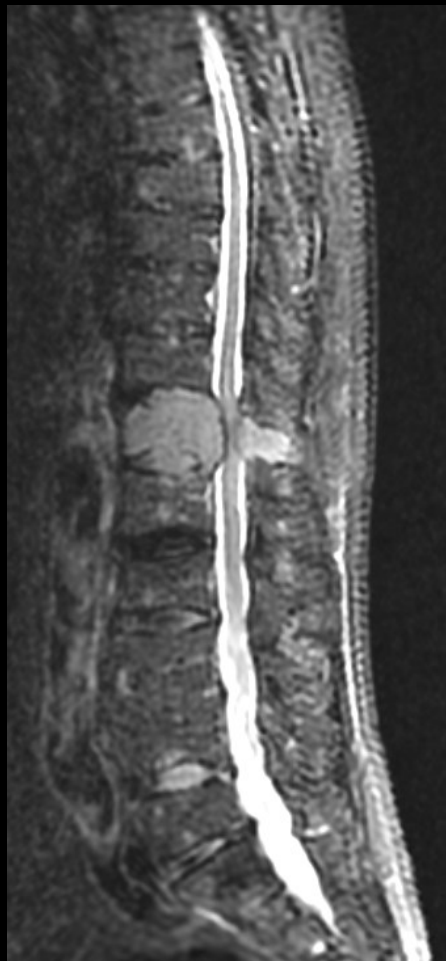
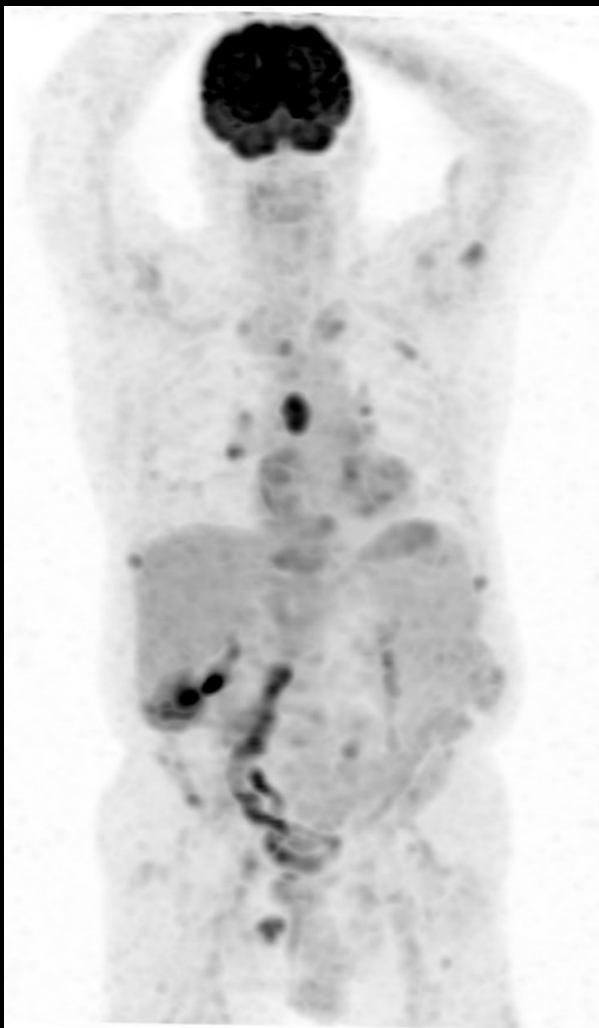


STIR



Homme, 82 ans, paraparésie progressive des mb inf
ATCD dialyse

FDG





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QUIZZ 5

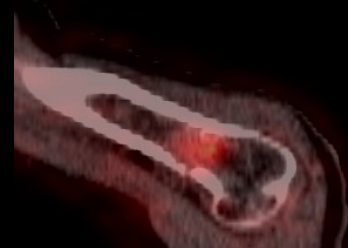
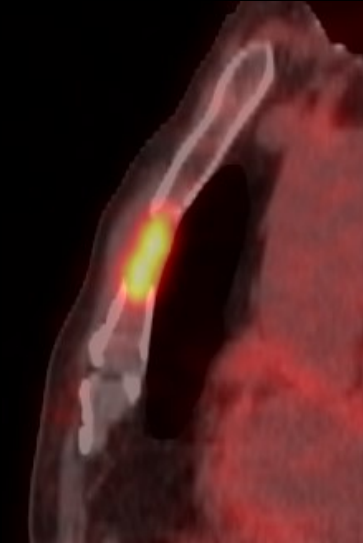
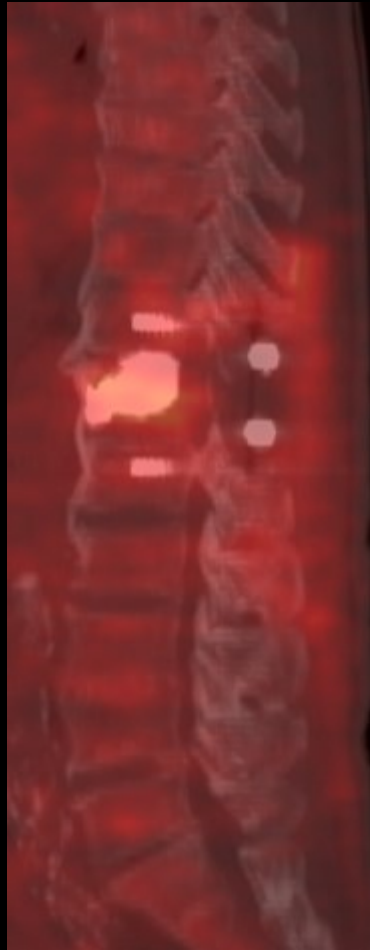
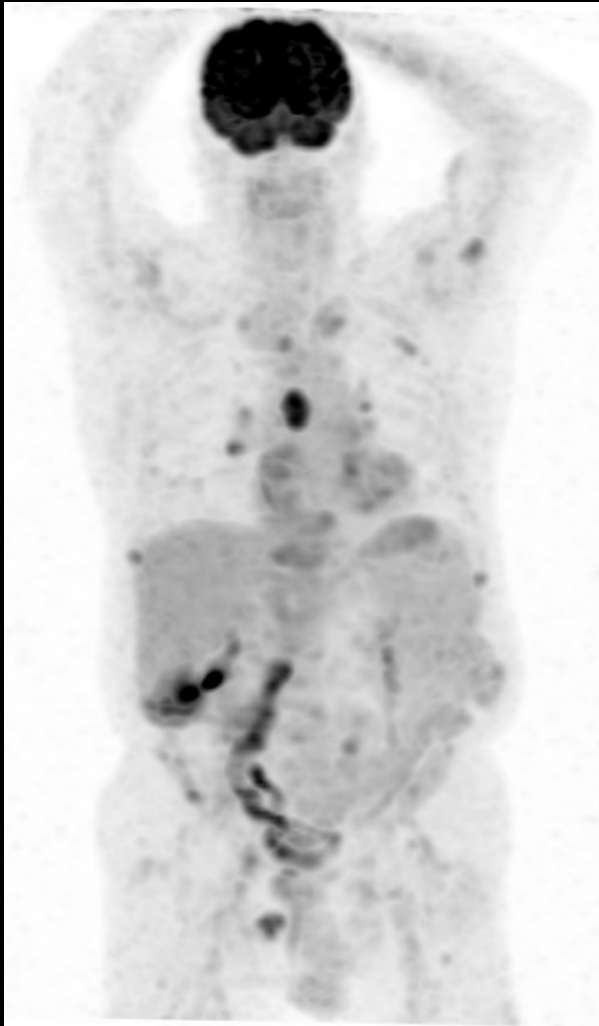
CPDRDEZ3Z



STUDENT

Homme, 82 ans, paraparésie progressive des mb inf
ATCD dialyse

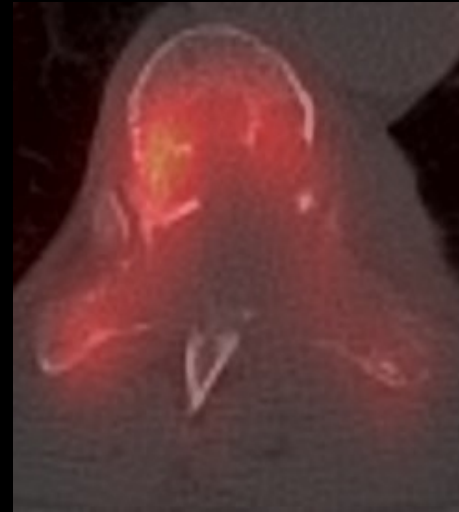
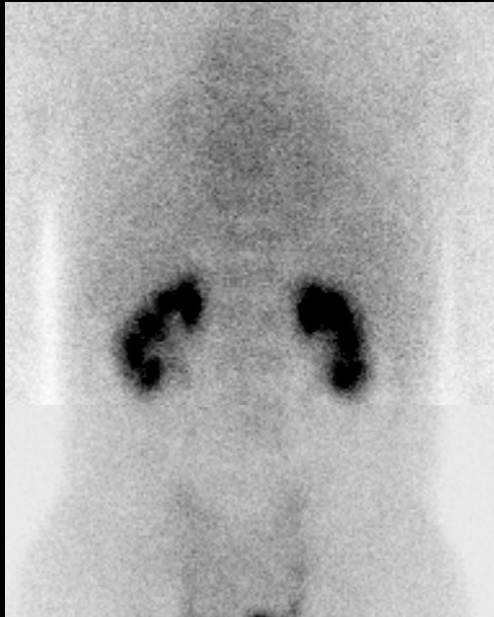
FDG



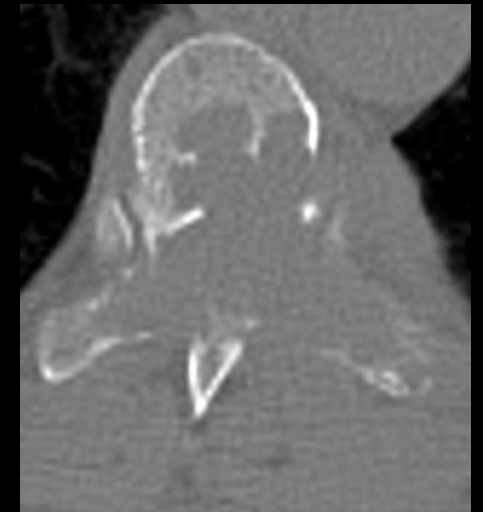
→ Plasmocytome ---> myélome

Homme, 73 ans, douleurs rachidiennes rebelles.
Recherche de fracture vertébrale

SO/TDM

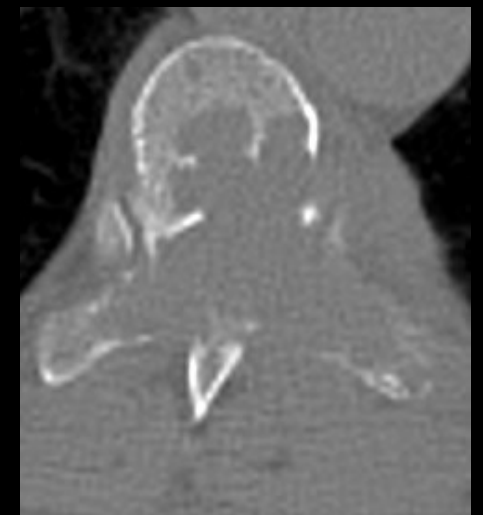
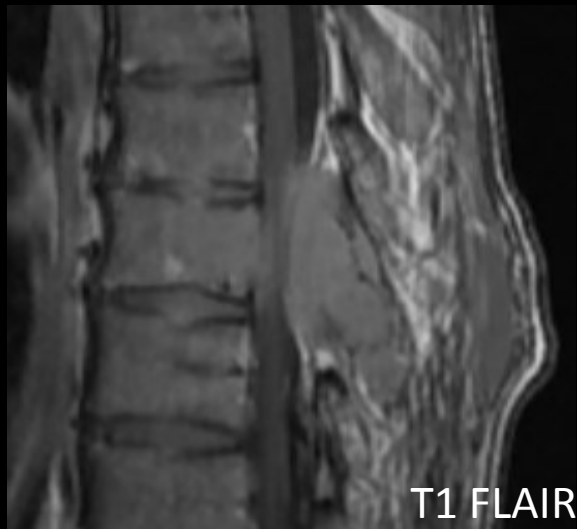
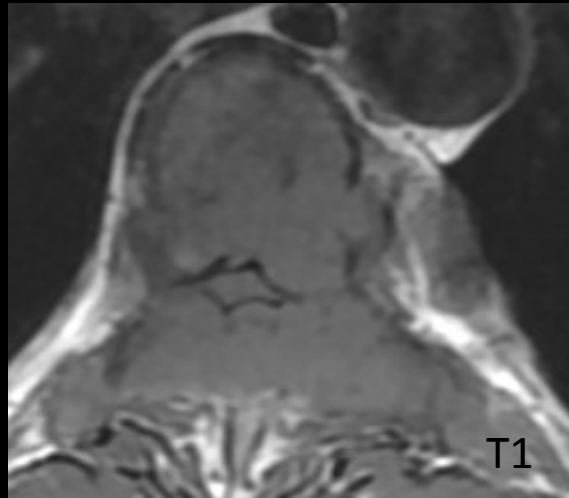
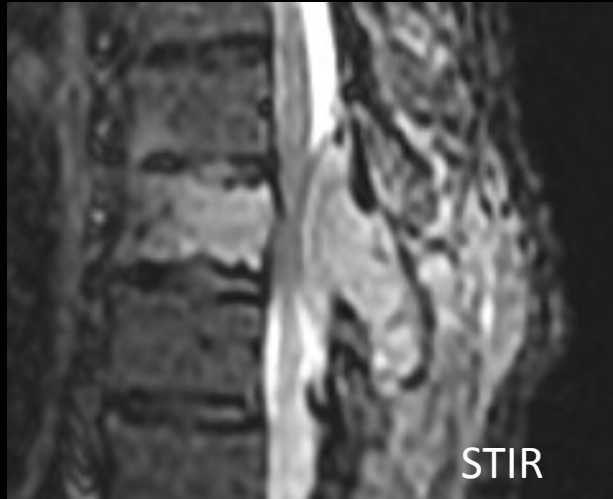


T8



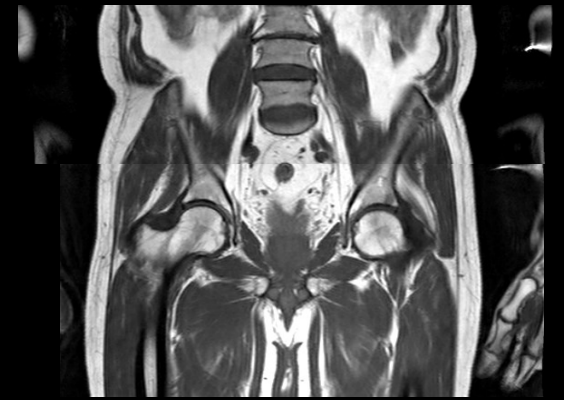
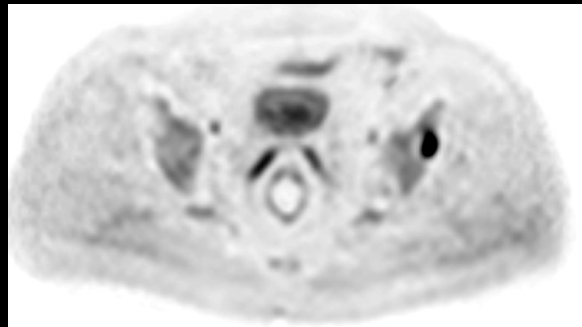
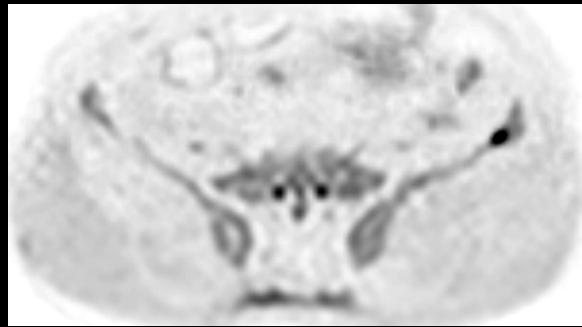
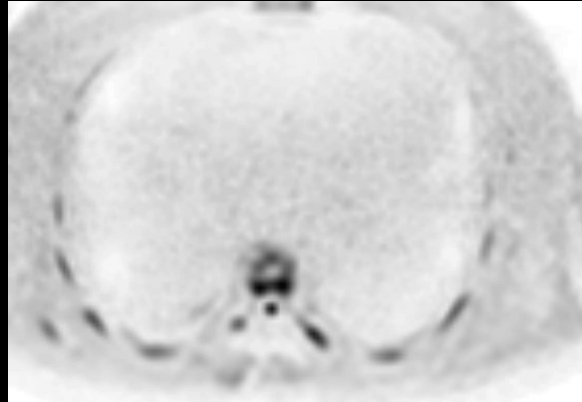
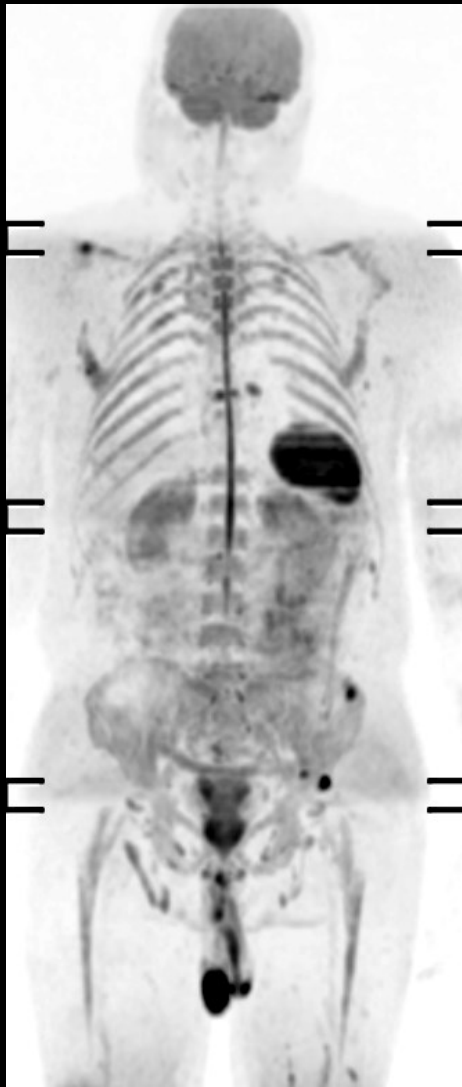
Homme, 73 ans, douleurs rachidiennes rebelles.

IRM

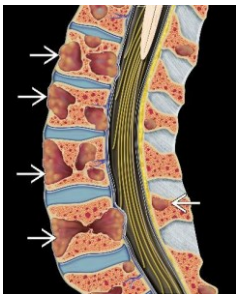


Homme, 73 ans, douleurs rachidiennes rebelles.
Suivi à 4 ans. Reprise des douleurs.

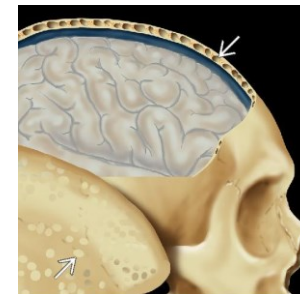
IRM CE



→ myélome



Myélome multiple



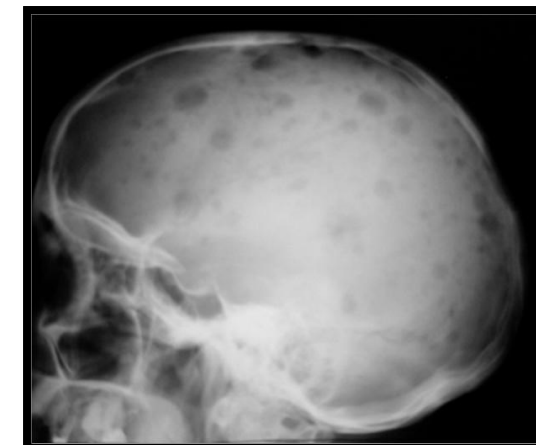
- 40-80 ans
- Gammapathie monoclonale/ Squelette axial et extrémités prox / 5% extra-médullaire
- Classification de Salmon et Durie **plus**:

Plasmocytose médullaire/ nb lésions lytiques/ **atteinte médullaire**
IRM et TEP (nb de lésions focales + sévérité de l'atteinte diffuse)

- Imagerie:
 - Rx/TDM: lésions lytiques multiples à l'emporte pièce
 - IRM (**WB-MR++**)/ TEP FDG (lésions extra médullaires/suivi myélome non sécrétant): atteinte médullaire multifocale ou diffuse/ tumorale ou microlacunaire
 - Pas de scinti os
- Dg différentiel:
meta, lymphome, leucémie

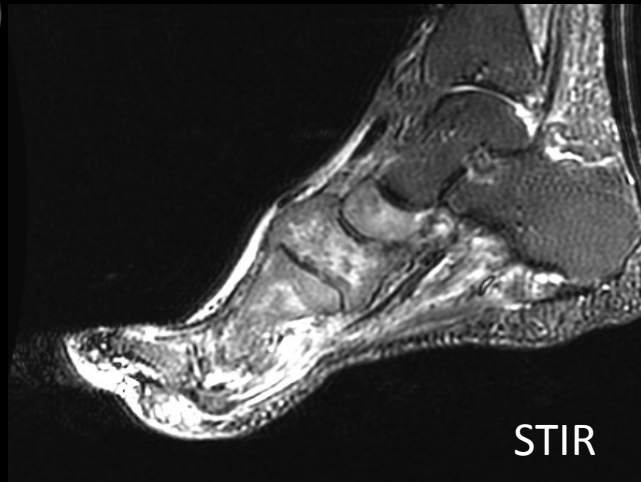
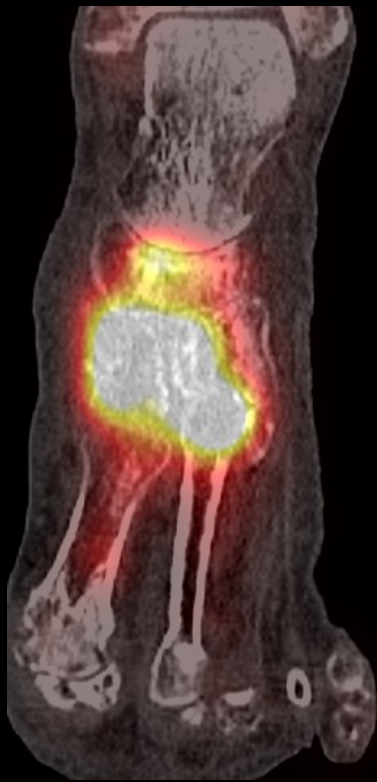
Plasmocytome

- Solitaire médullaire > extra-médullaire
- 30-50% évolution vers MM

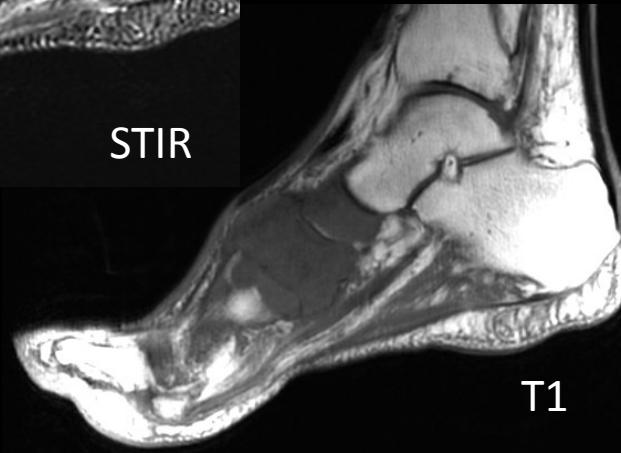


SO/TDM/
IRM

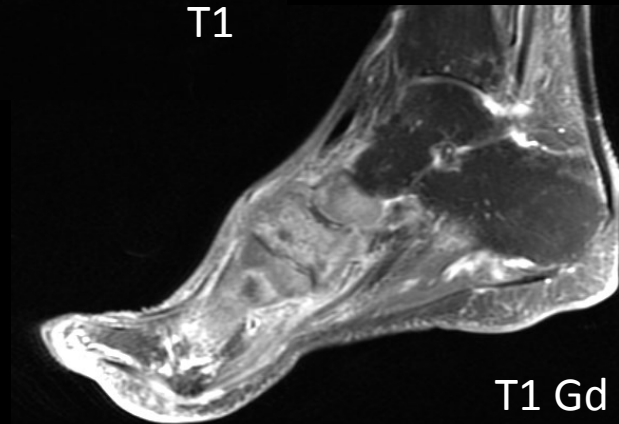
Homme, 76 ans, bilan d'extension néoplasie vésicale.
DI pied gauche.



STIR



T1



T1 Gd



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QUIZZ 6

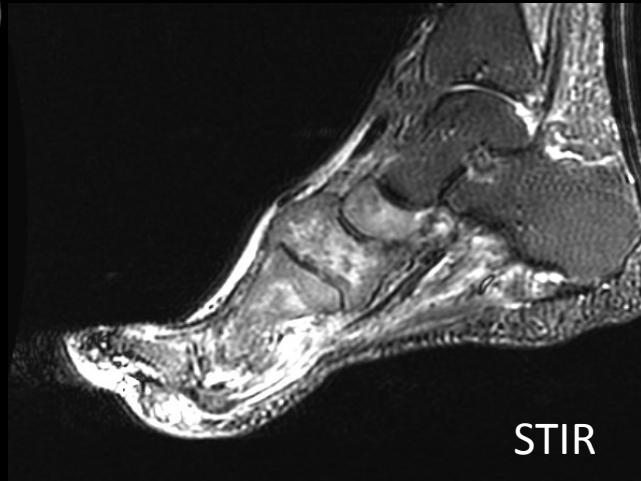
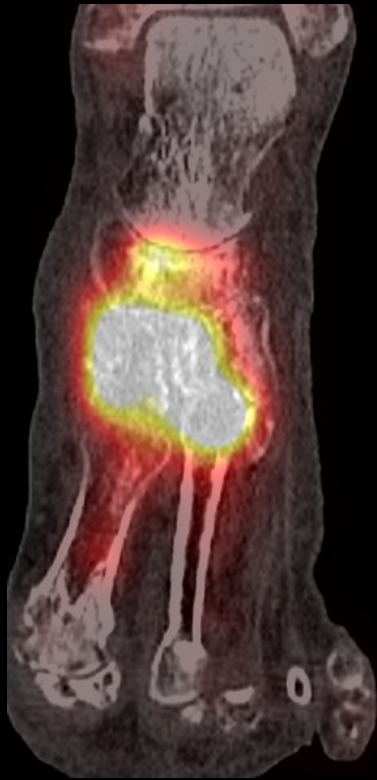
CPDRDEZ3Z



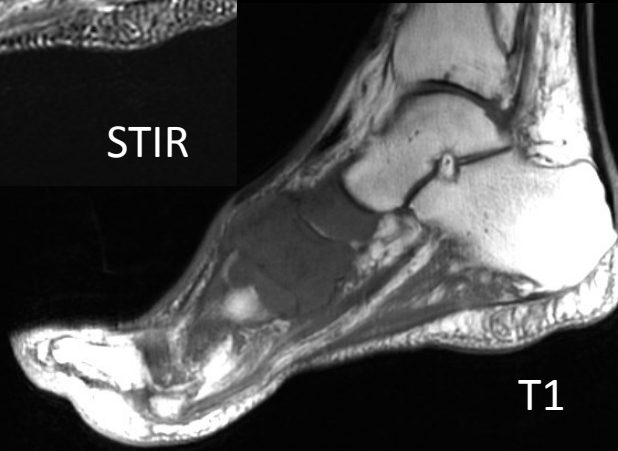
STUDENT

SO/TDM/
IRM

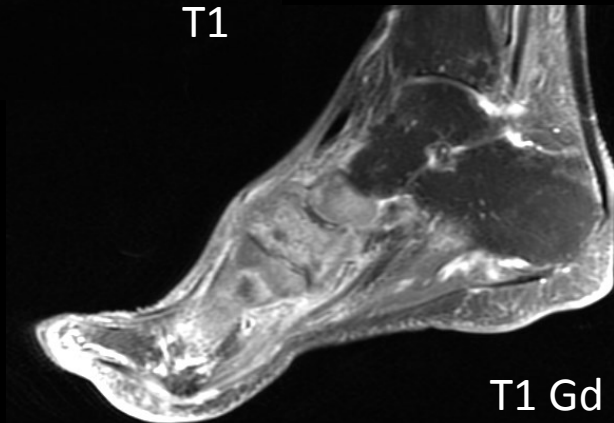
Homme, 76 ans, bilan d'extension néoplasie vésicale.
DI pied gauche.



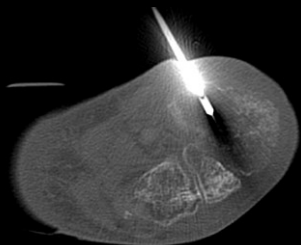
STIR



T1



T1 Gd

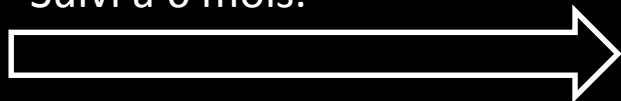


Métastase osseuse d'un carcinome (urothéliale)

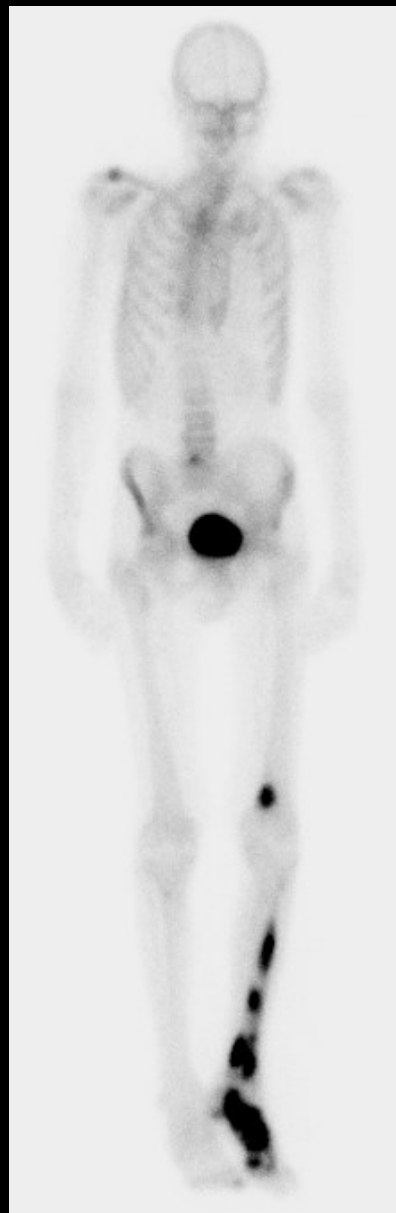


Homme, 76 ans, néoplasie vésicale.

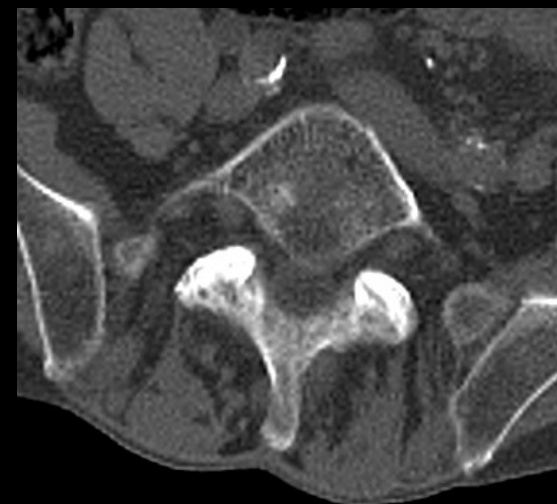
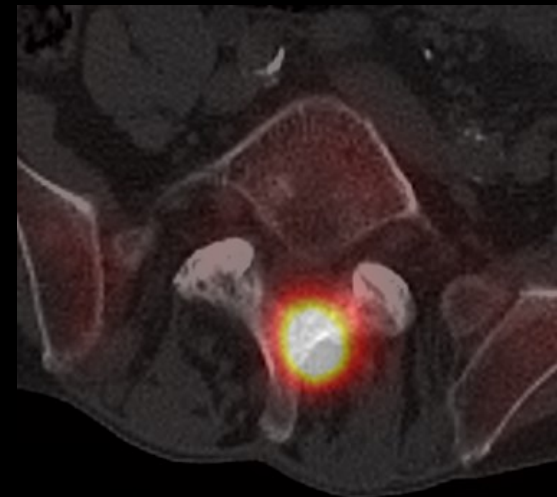
Suivi à 6 mois.



+ meta ganglionnaires et pulmonaires

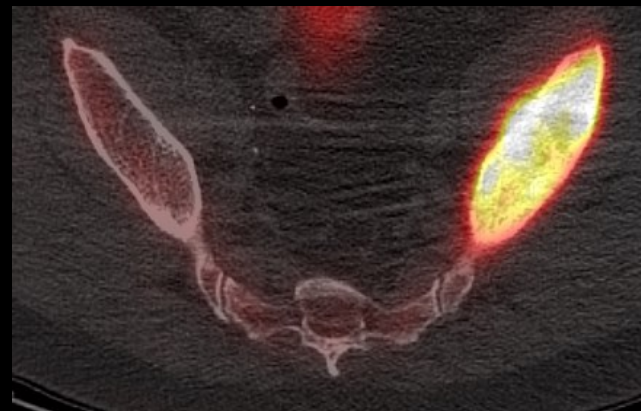
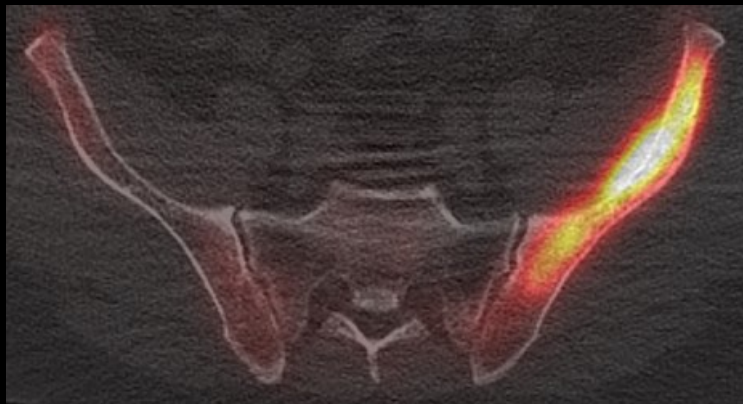


SO/TDM



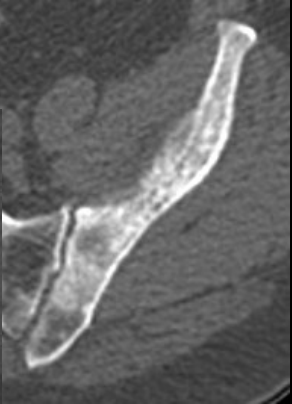
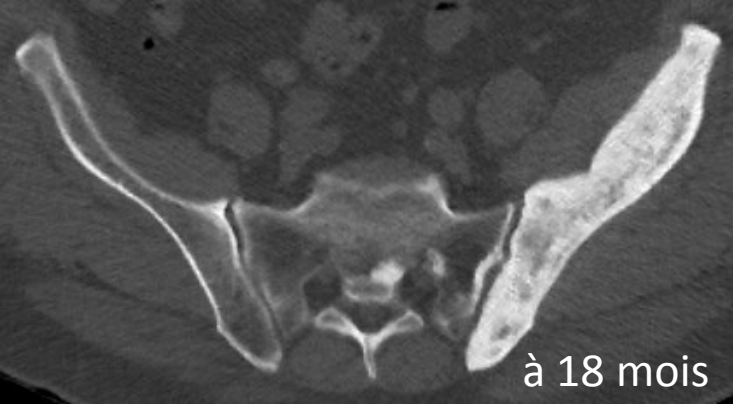
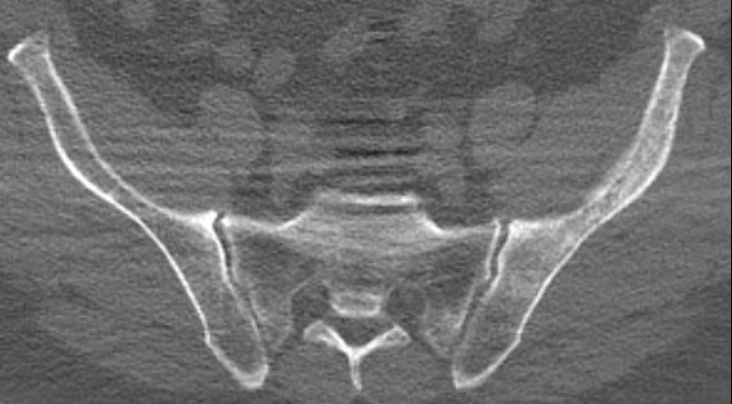
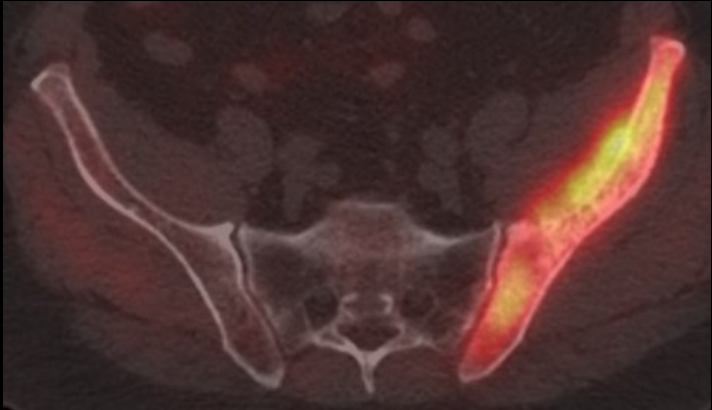
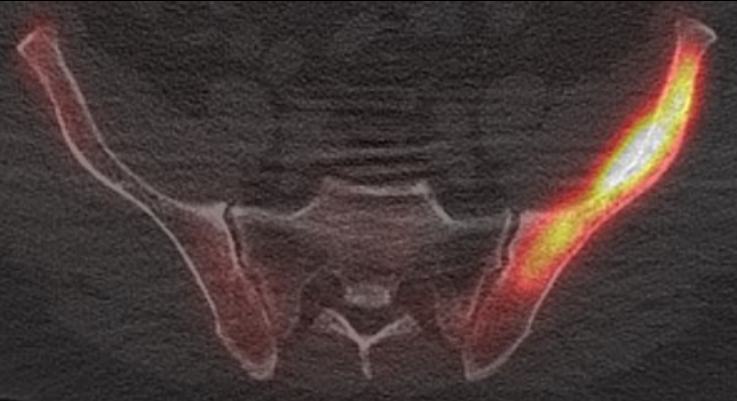
FNa

Homme, 71 ans, néoplasie prostatique.



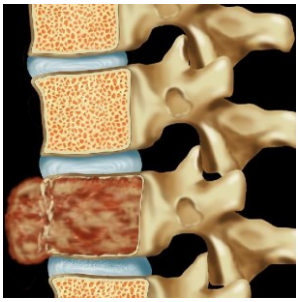
FNa/
FCholine
à 3 mois

Homme, 71 ans, néoplasie prostatique.



→ Méta pagétoïde

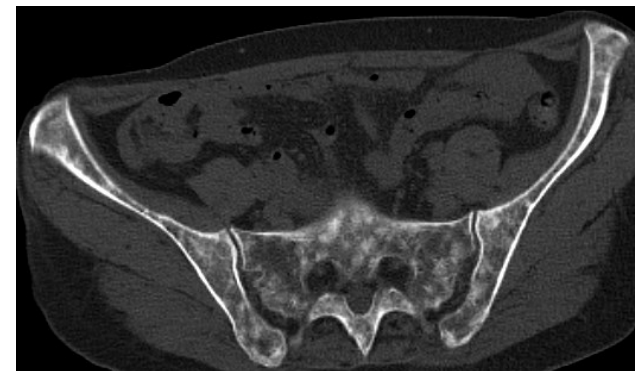
à 18 mois



Métastases

- > 40 ans
- Douleurs, fracture, compression, hypercalcémie
- Squelette axial: MOH, plexus veineux vertébral (volume, pression, pas de valve)
- Primitif: poumon, rein, thyroïde (lytique), prostate (condensant), sein (mixte)
- Imagerie:
 - Rx/TDM: médullaire >> cortical (poumon)
 - IRM: Gd+
 - Scinti os/ FNa : condensant, mixte
 - FDG (poumon, sein), Fcholine (prostate), Iode (thyroïde)
- Dg différentiel:

Meta condensante (Paget, ICB, sarcoidose...), lytique (myélome, tumeurs brunes, histiocytose...), Fracture par insuff. Osseuse, infection



Tumeurs osseuses

Incertain ou agressif

RCP

Atteinte multiple?

TDM
IRM
Scinti, TEP

Hémato: myélome?
Lymphome?...
Métastases: primitif?

Biopsie
TTT

Merci de votre participation

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