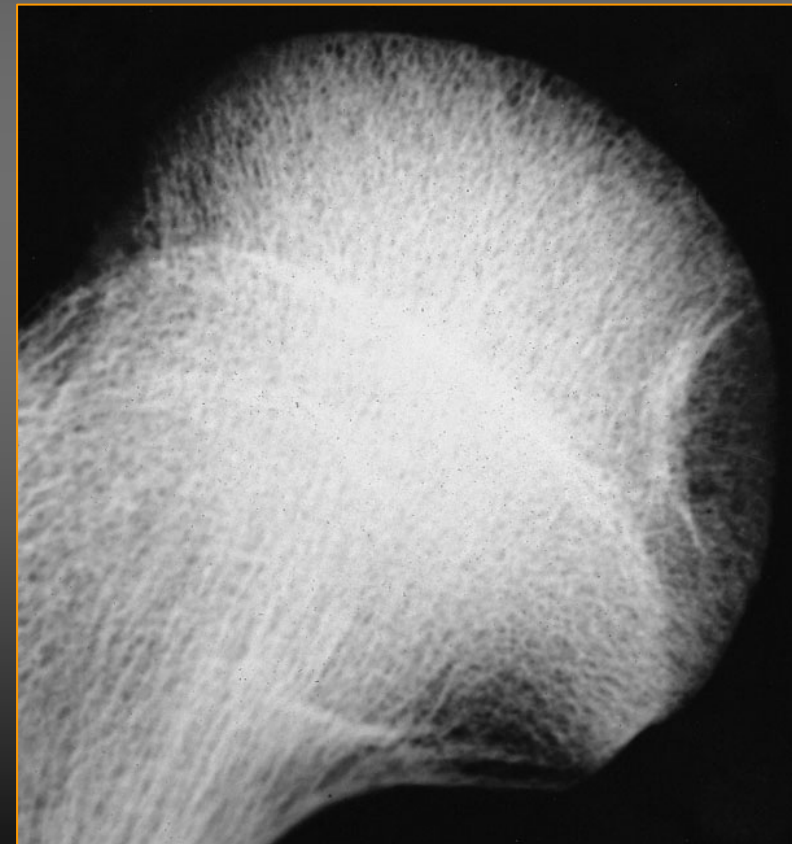
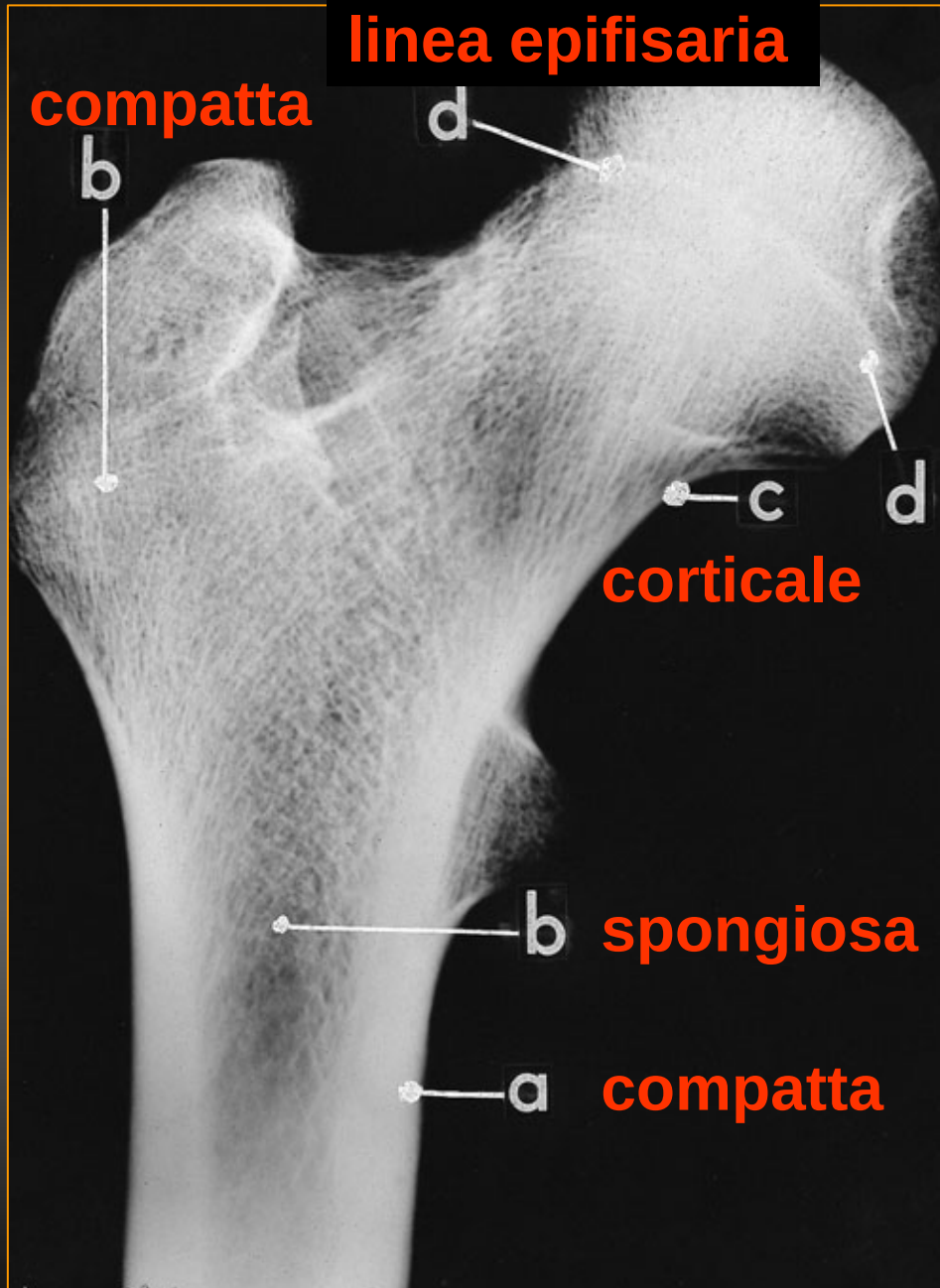


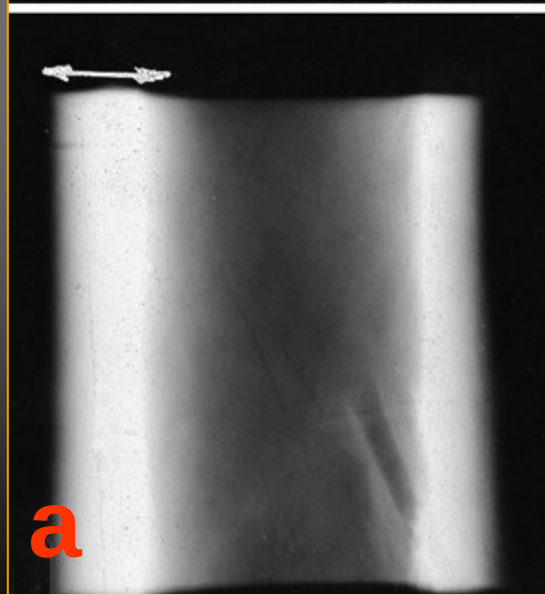
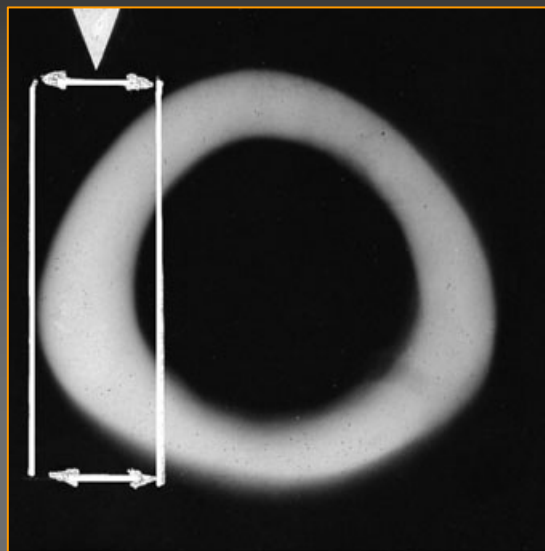
L'OSSO E LO SCLELETRO: MICRO E MACRO-STRUTTURA

- sostanza intercellulare (fibre collagene, sostanza amorfa, sali minerali)
- cellule (osteoblasti, osteoclasti)
- matrice organica mineralizzata (lamelle ossee)
 - osso spugnoso o trabecolare
 - osso compatto – corticale
- periostio ed endostio
- ossa lunghe, piatte e brevi o corte
- epifisi, metafisi e diafisi
- l'ossificazione
- le articolazioni (sinartrosi, diartrosi)
- muscoli e tendini
- legamenti
- membrana sinoviale e liquido sinoviale

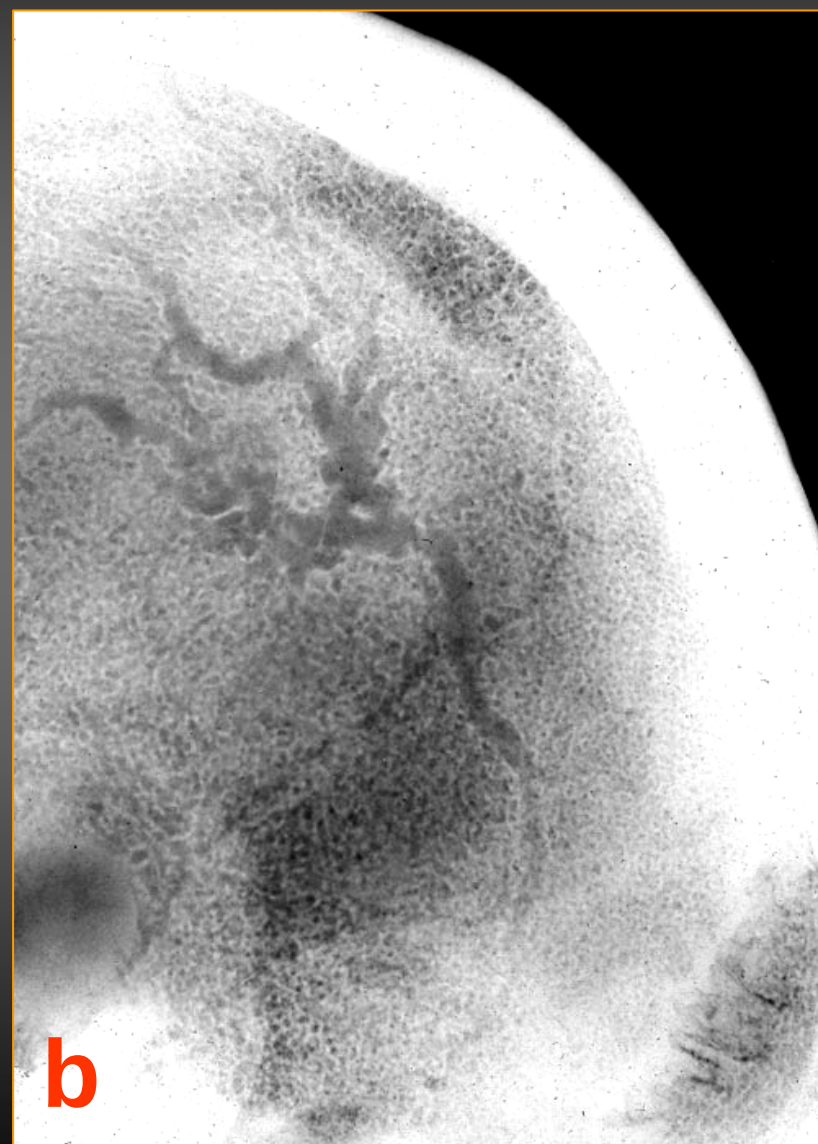
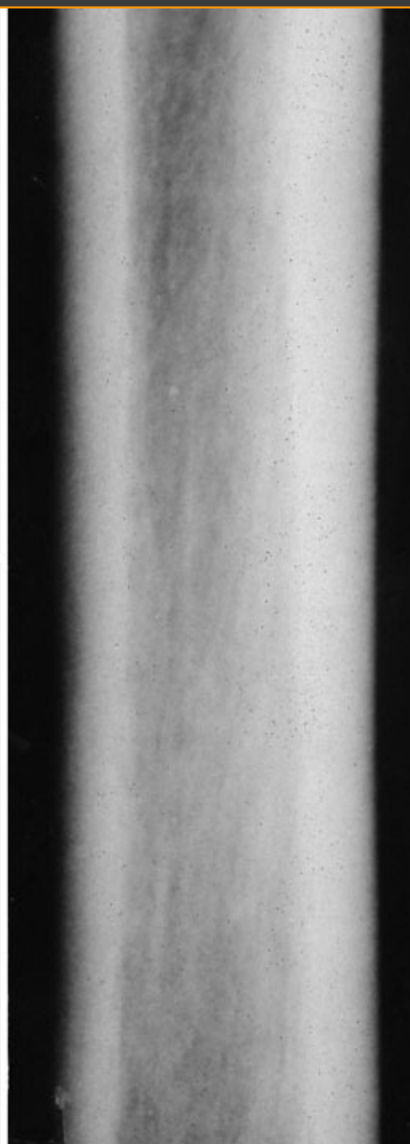
MACROSTRUTTURA OSSEA



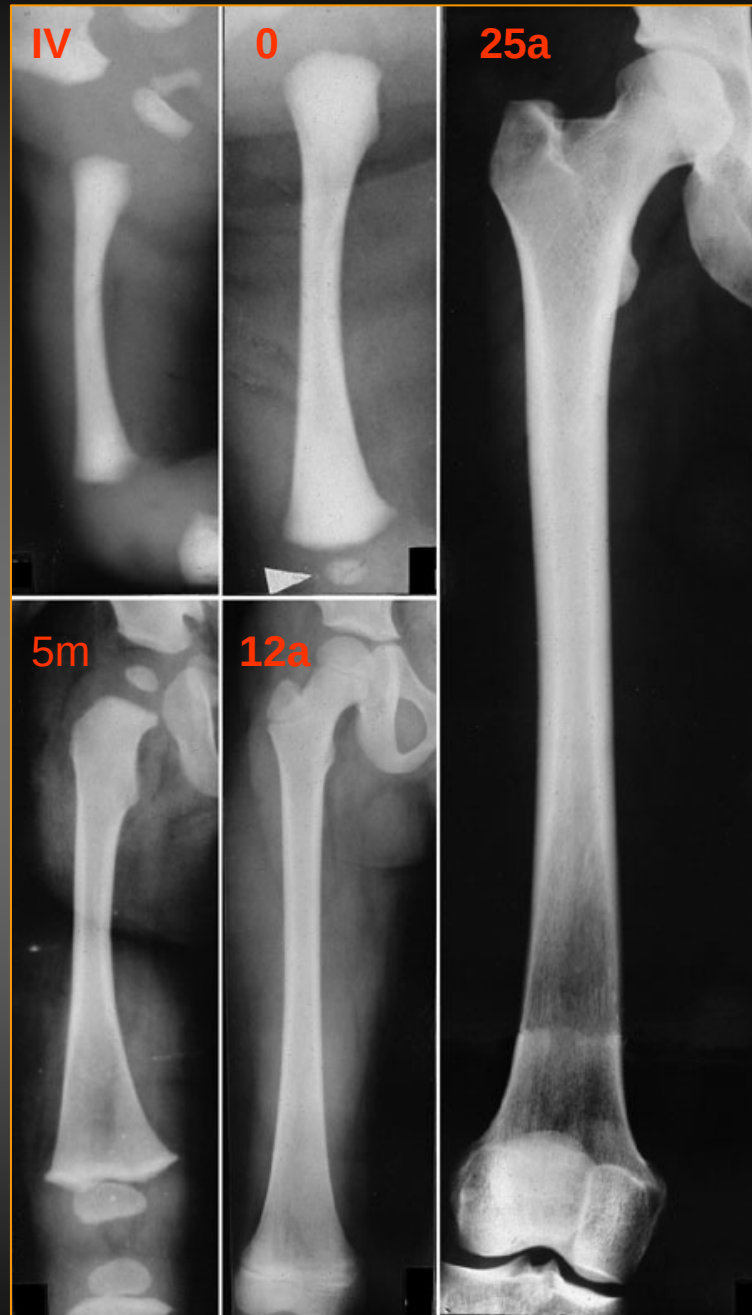
DIFFERENZE DELLA COMPATTA DELLE OSSA LUNGHE (a) E DELLE OSSA PIATTE (b)



a



b



SVILUPPO E OSSIFICAZIONE DEL FEMORE

CARTILAGINE DI ACCRESCIMENTO E MACRO-STRUTTURE OSSEE



ALTERAZIONI FONDAMENTALI DELLA FORMA DELL'OSSO

IPOPLASIA **vs** IPERPLASIA

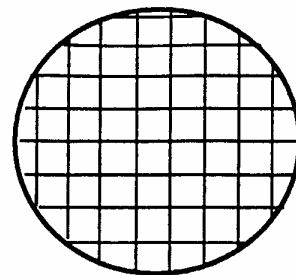
IPOSTOSI **vs** IPEROSTOSI

www.fisiokinesiterapia.biz

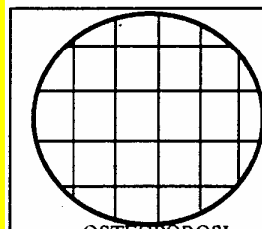
ACROMEGALIA



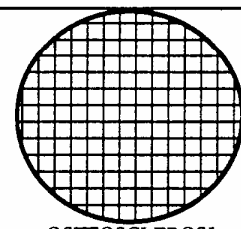
**alterazioni con
riduzione della
opacità dell'osso**



STRUTTURA OSSEA
NORMALE

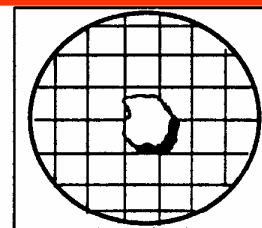


OSTEOPOROSI

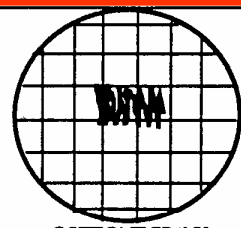


OSTEOSCLEROSI

**alterazioni con
conservazione
della struttura ossea**

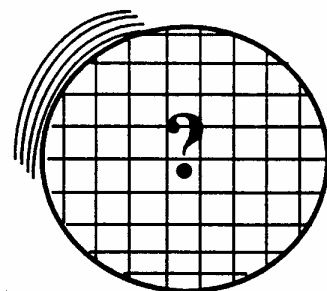


OSTEOLISI

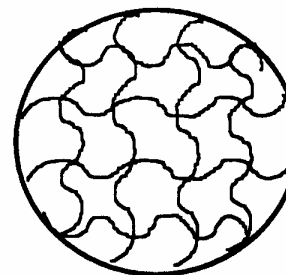


OSTEONECROSI

**alterazioni con
perdita della
struttura ossea**



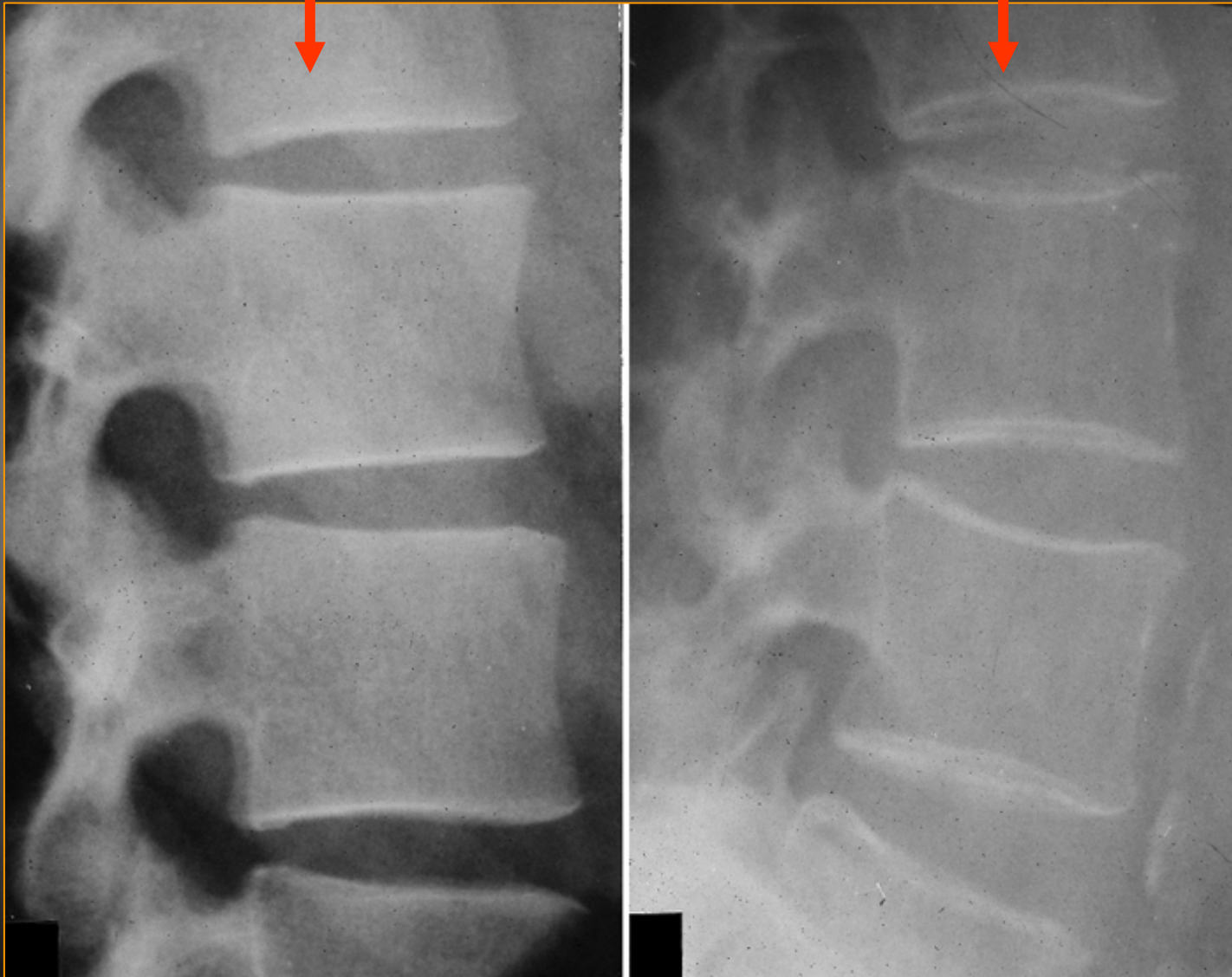
PERIOSTOSI



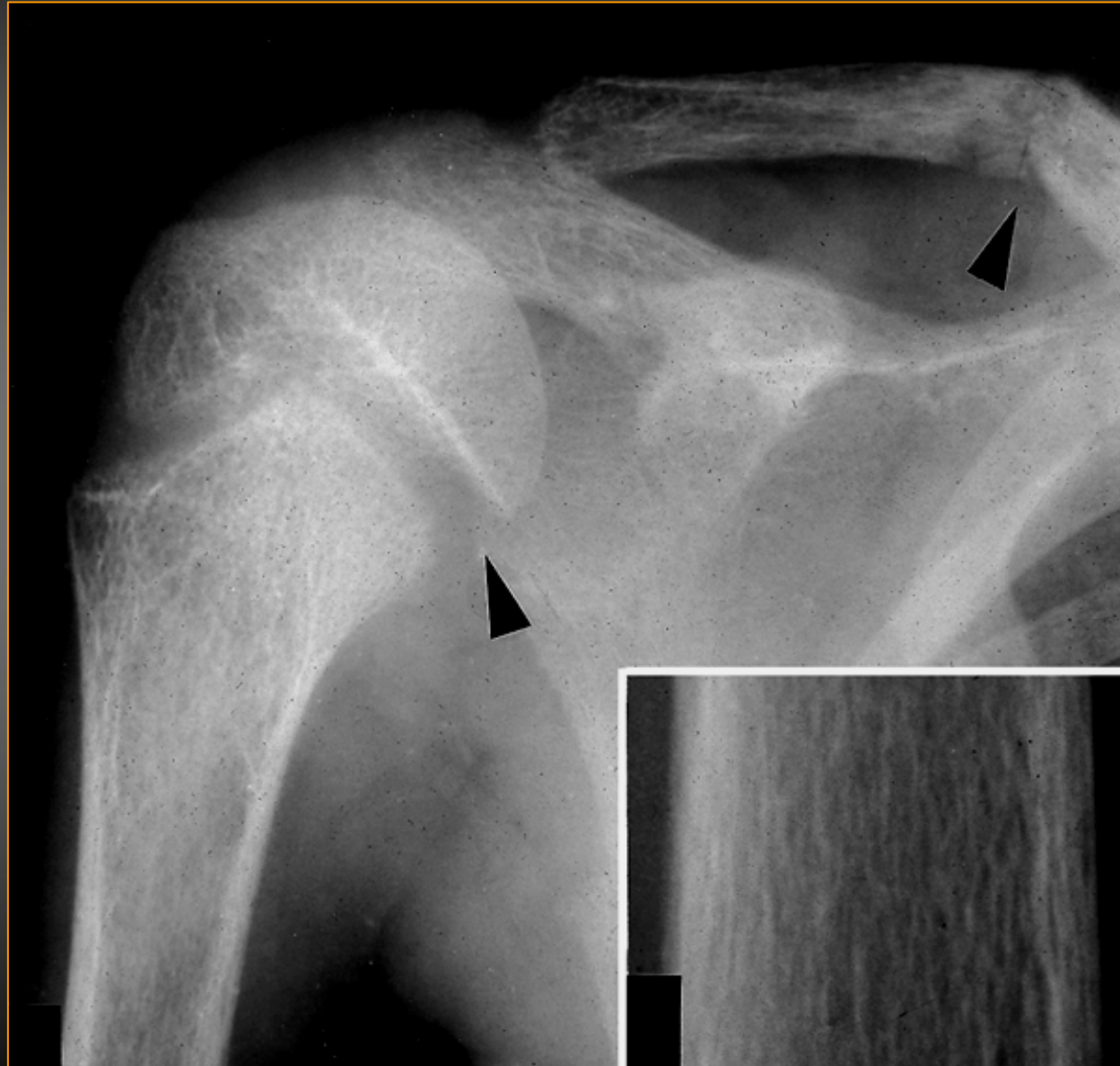
OSTEODISTROFIA

**alterazioni con
aumento della
opacità dell'osso**

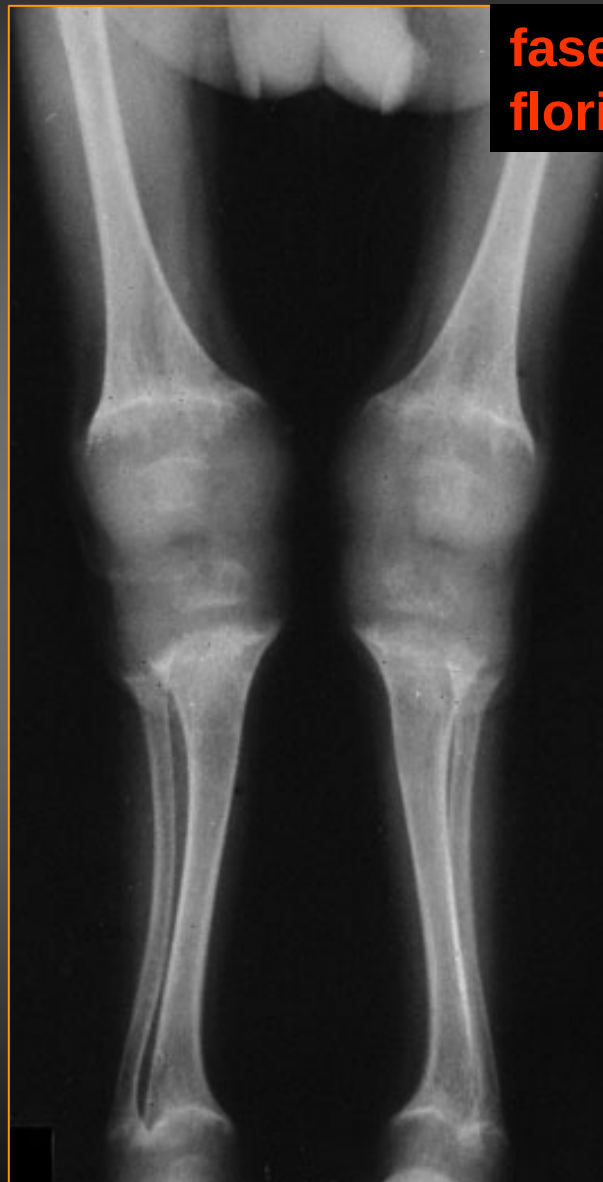
OSSO NORMALE E OSSO OSTEOPOROTICO



OSTEOPOROSI DA RACHITISMO RENALE



OSTEOPOROSI – RACHITISMO VERO



fase
florida



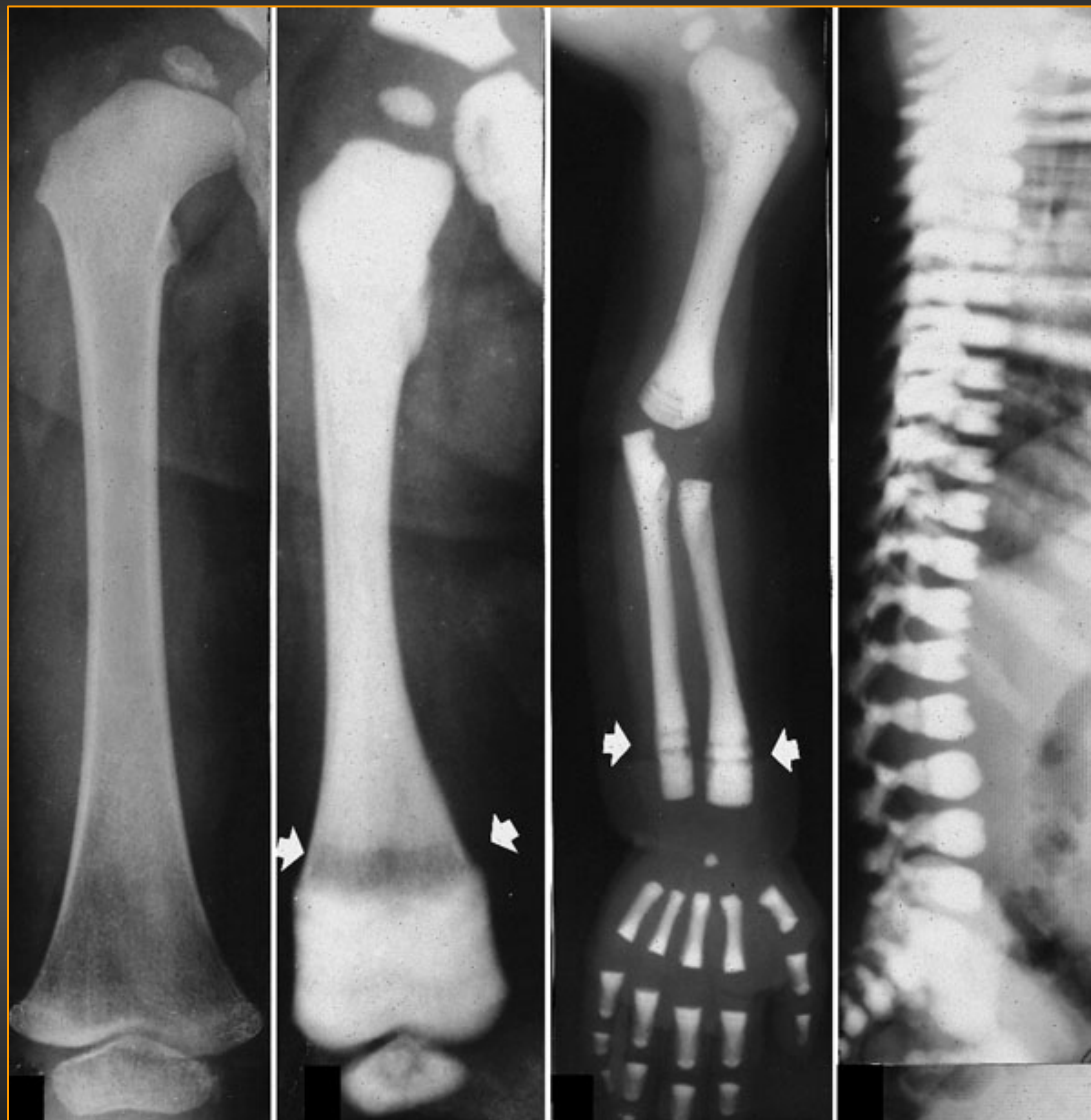
remissione



OSTEOSCLEROSI PURE IDIOPATICHE



melorheostosi



osteopetrosi

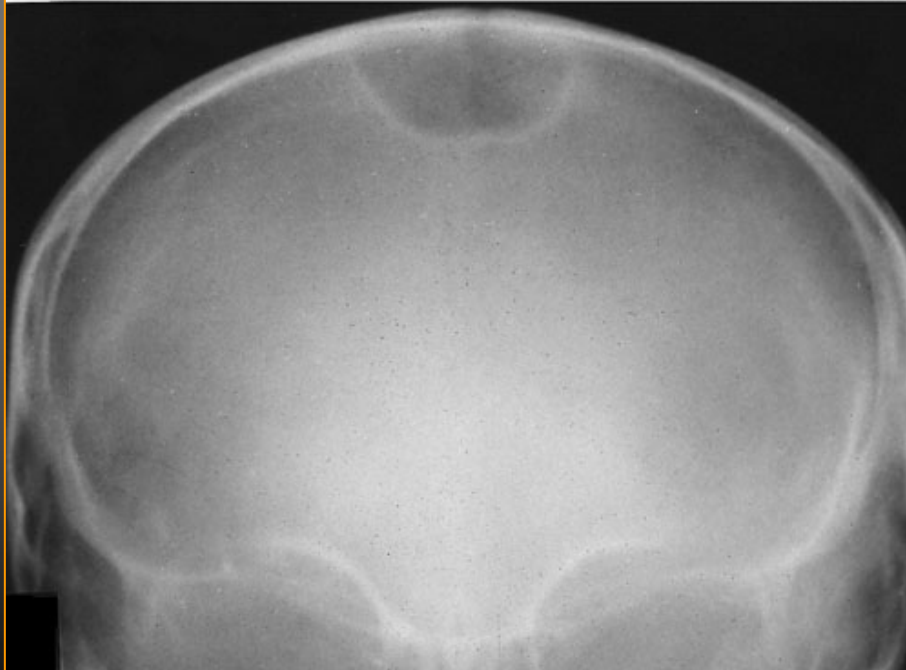
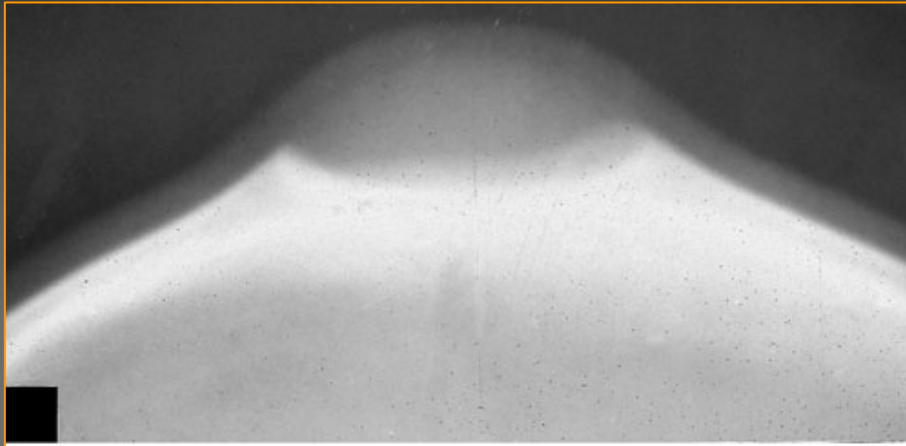
OSTEOLISI NEOPLASTICHE



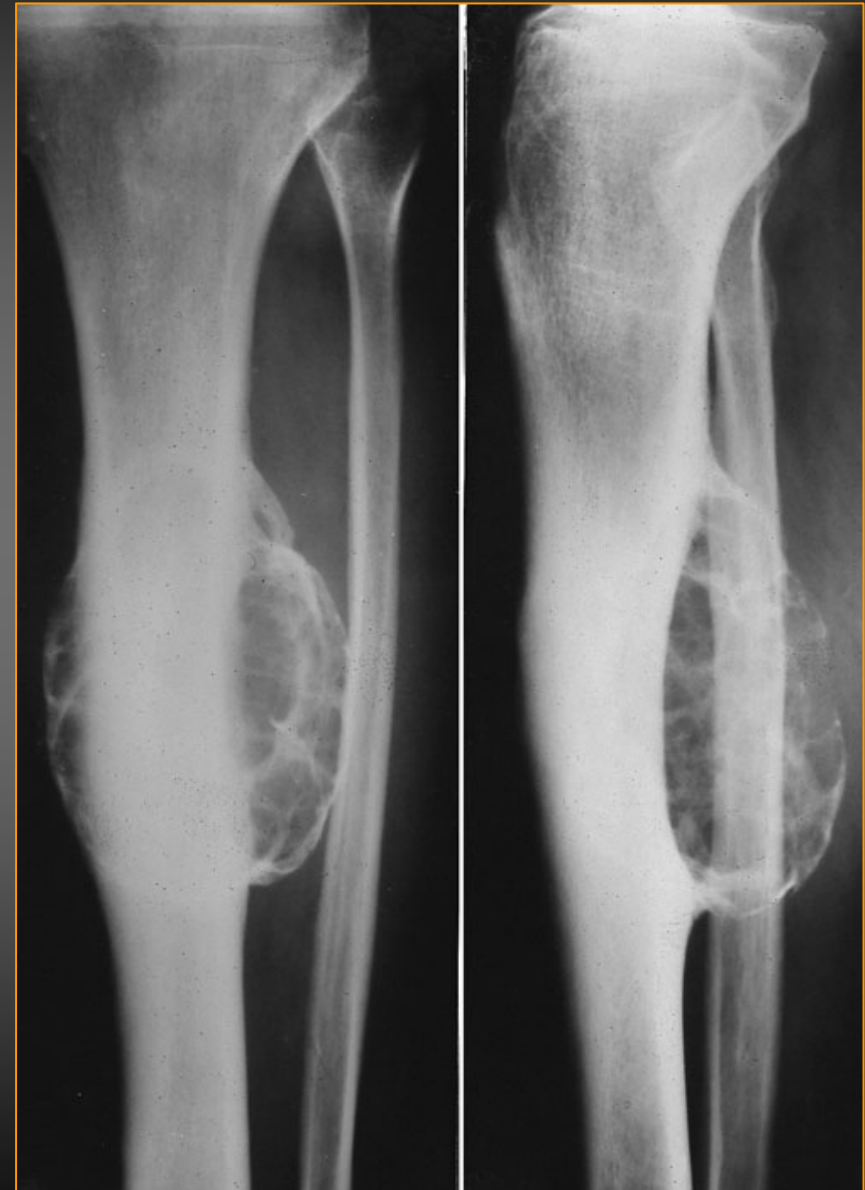
benigna
ENCHONDROMA

maligna
OSTEOSARCOMA

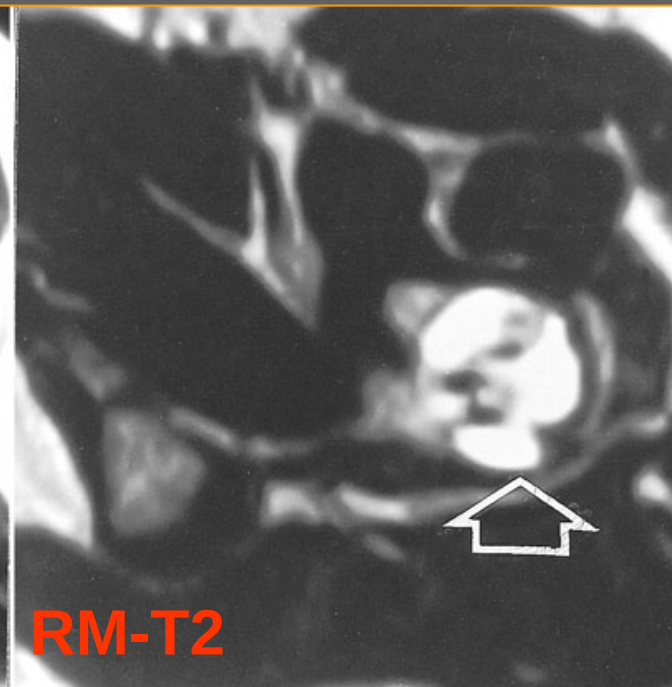
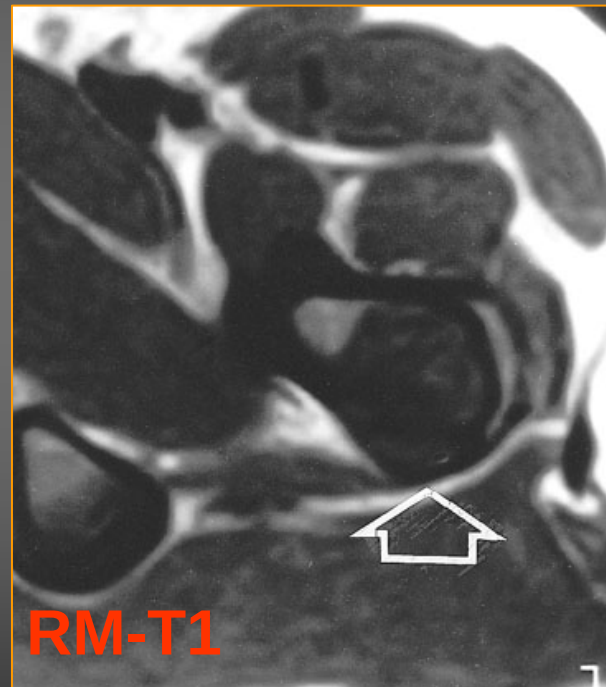
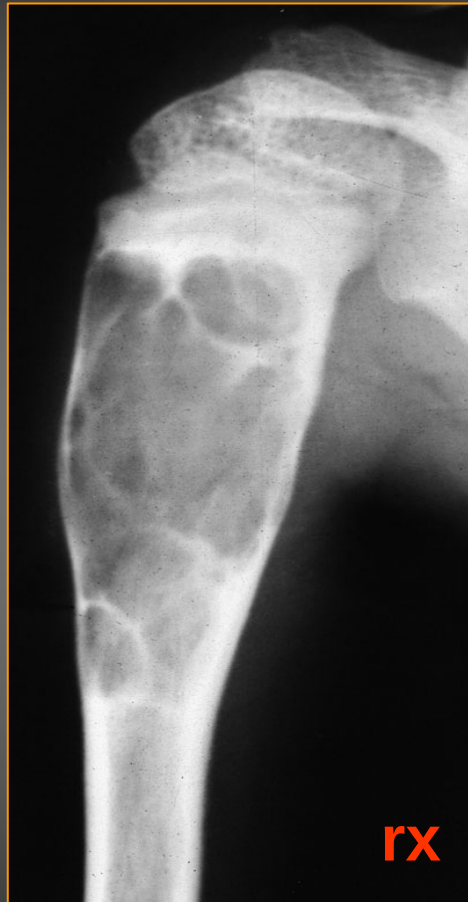
CISTI EPIDERMIOIDE



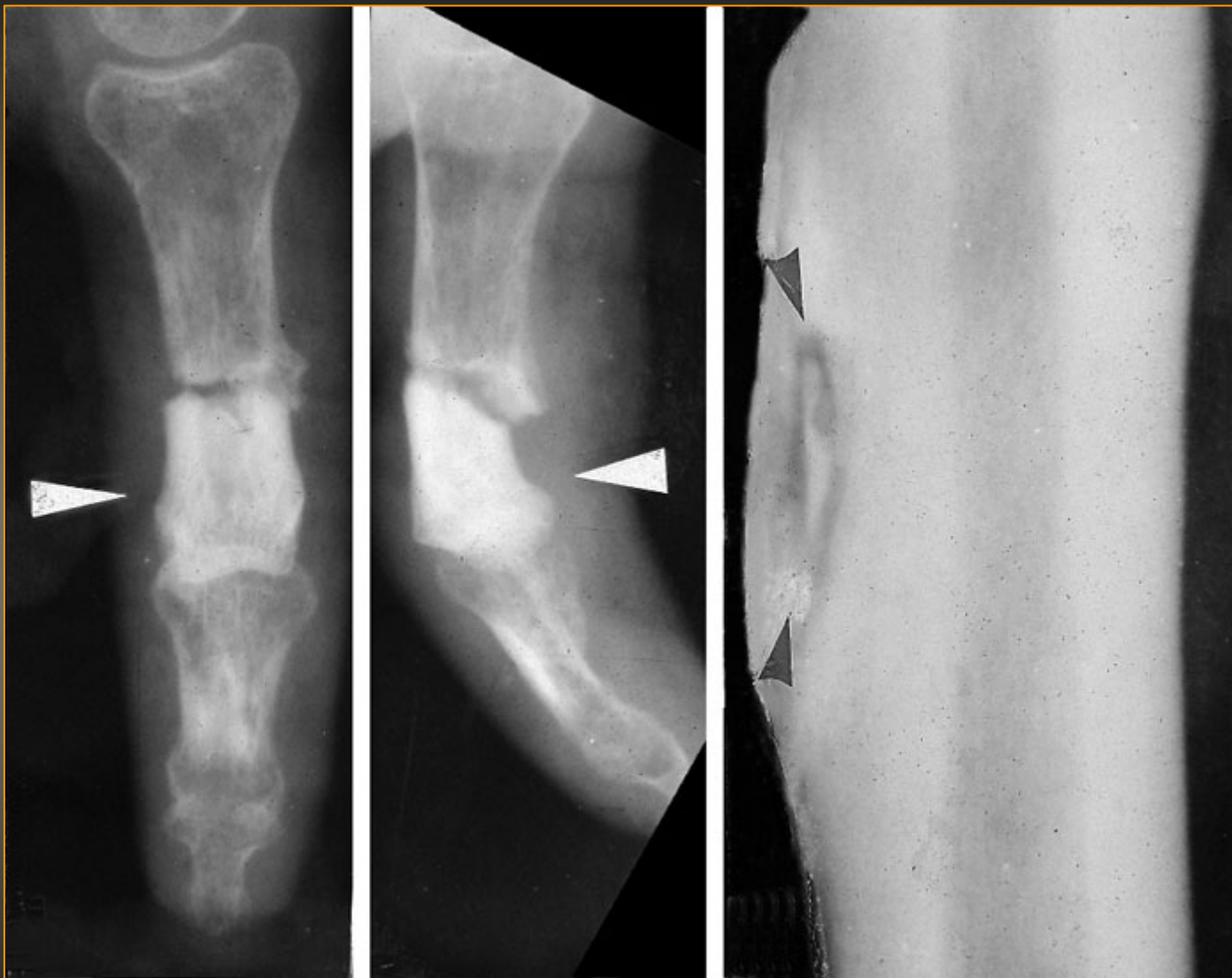
CISTI ANEURISMATICA



CISTI OSSEA SOLITARIA



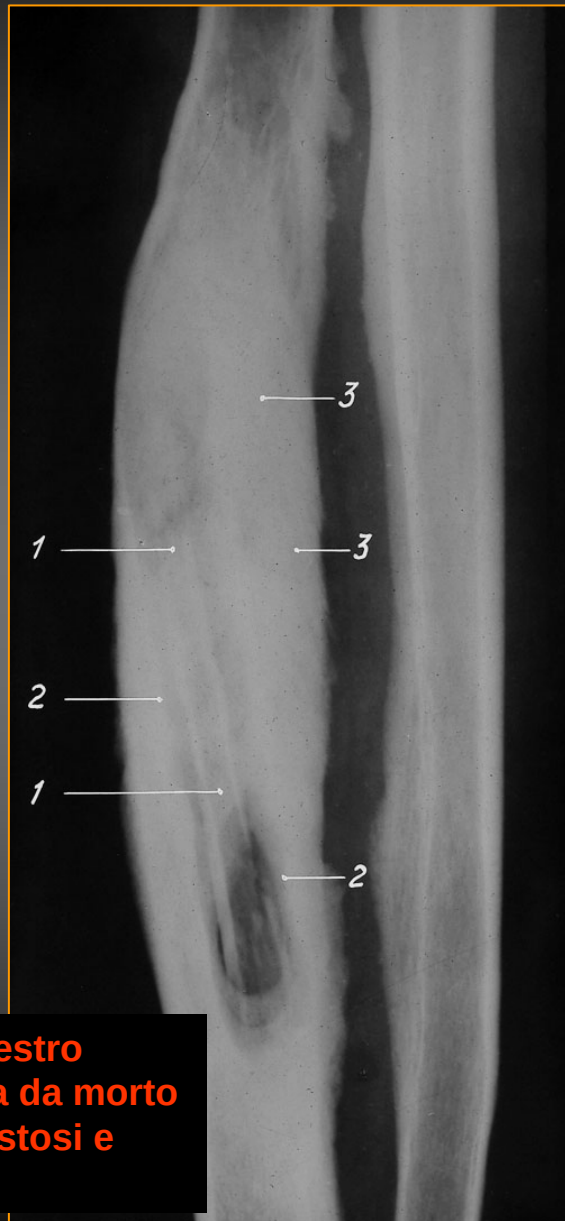
OSTEONECROSI ASETTICHE



post-traumatica

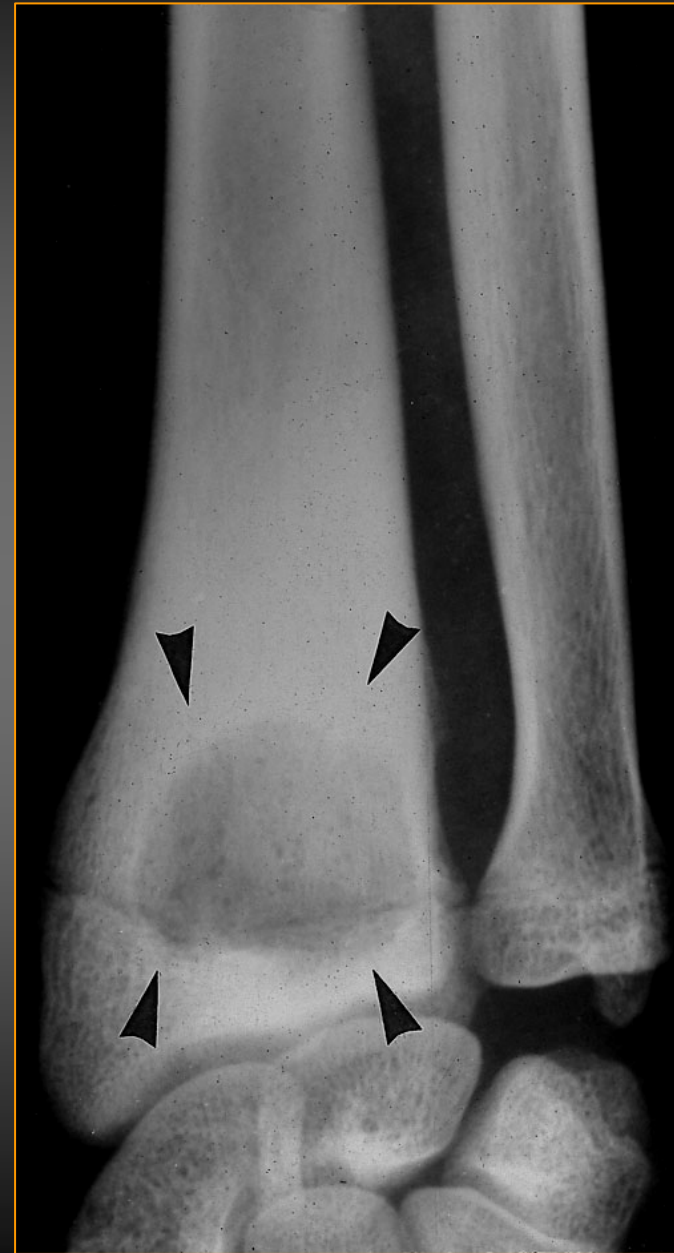
da folgorazione

OSTEONECROSI DA OSTEOMIELITE



- 1.sequestro
- 2.cassa da morto
- 3.periostosi e sclerosi

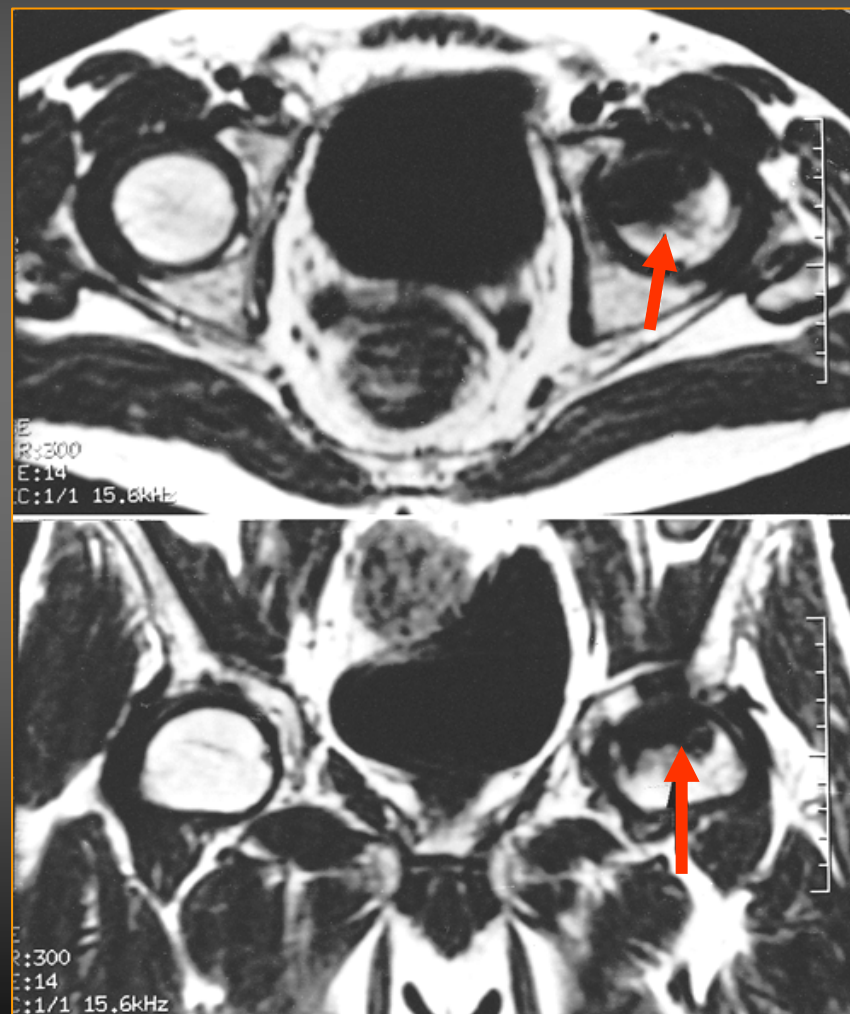
ASCESSO DI BRODIE



OSTEONECROSI DELLA TESTA FEMORALE

Giovanile asettica - M. di Perthes

non traumatica dell'adulto



OSTEONECROSI DEL SEMILUNARE (m. di Kienbock)



CRANIO “A SPAZZOLA” DA
**CRANIO “A SPAZZOLA” DA TALASSEMIA
(MALATTIA DI COOLEY)**



APPARATO OSTEO-ARTICOLARE: LE INDAGINI RADIOLOGICHE

- **Esame radiografico**
- **Tomografia Computerizzata**
- **Risonanza Magnetica**
- **Ecografia**
- **Densitometria**
- **Scintigrafia**
- **(Angiografia e procedure interventistiche)**

Malattie delle ossa (1)

-ANOMALIE E MALFORMAZIONI

-LESIONI TRAUMATICHE

- fratture traumatiche, patologiche e da stress
- lussazioni

-PATOLOGIA INFETTIVA aspecifica e specifica,acuta e cronica

-PATOLOGIE DA AGENTI CHIMICI E FISICI

-MALATTIE SISTEMICHE

- endocrine (ipofisi,tiroide,paratiroidi,surreni,pancreas)
- sistema emopoietico
- metaboliche (osteoporosi,rachitismo e osteomalacia, tesaurismosi,connettiviti)

-CISTI (ossea semplice,epidermoide,aneurismatica)

LUSSAZIONE CONGENITA DELL'ANCA

nel bambino



nell'adulto

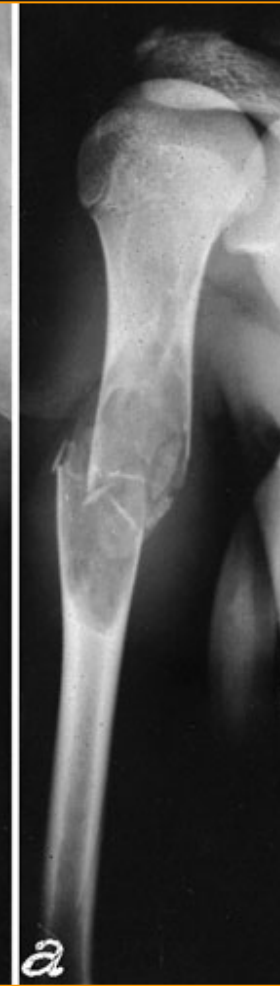


FRATTURE

traumatica



m. di Paget



cisti



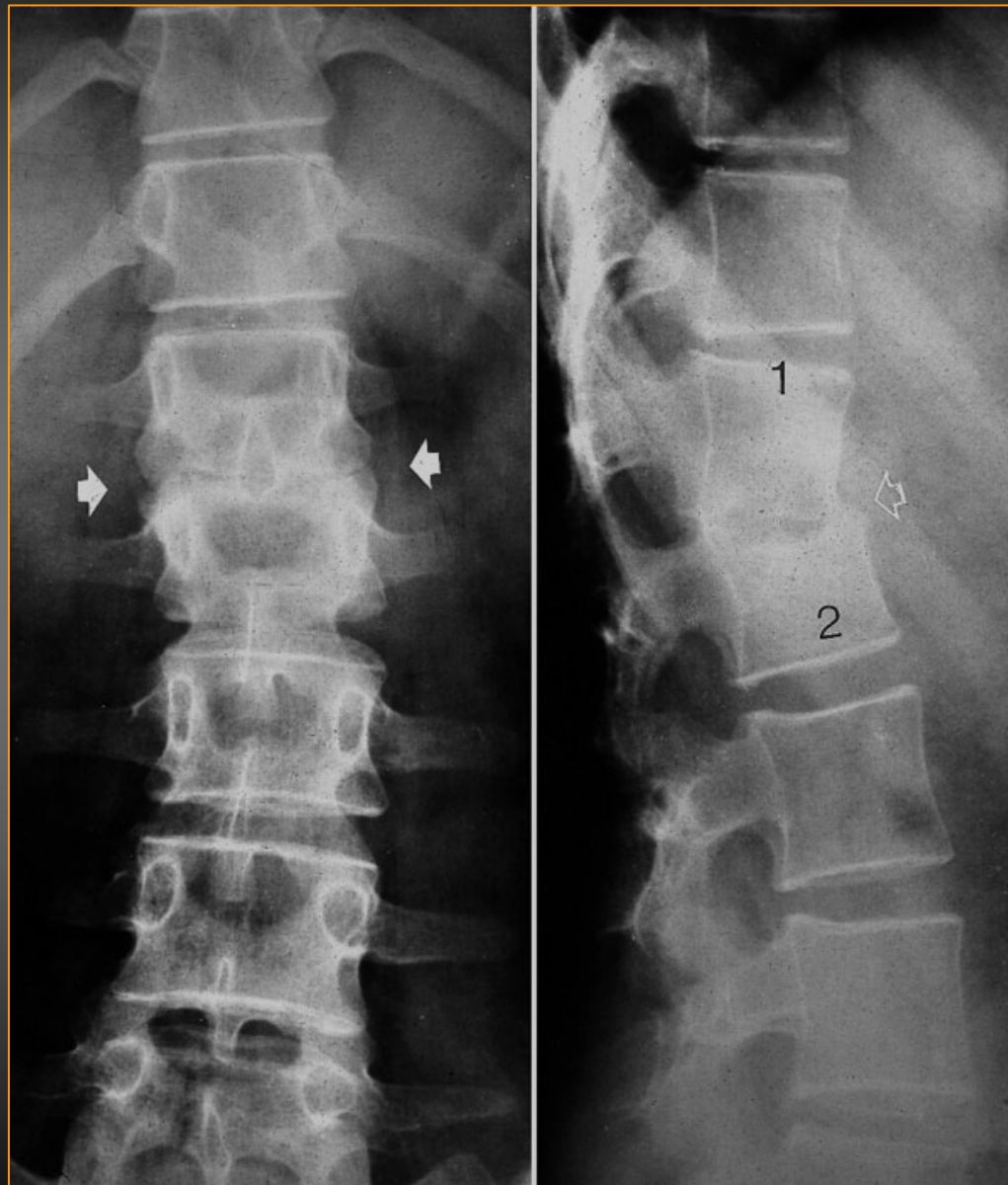
metastasi

patologiche

FRATTURA DA STRESS DELLO SCAFOIDE



SPONDILITE TUBERCOLARE



Malattie delle ossa (2)

-TUMORI PRIMITIVI

-che producono osso

benigni: osteoma, osteoma osteoide, osteoblastoma

maligni: osteosarcoma

-che producono cartilagine

benigni: condroma, osteocondroma

maligni: condrosarcoma

-che formano tessuto fibroso

benigni: fibroma non ossificante

maligni: fibrosarcoma

-tumori istiocitici

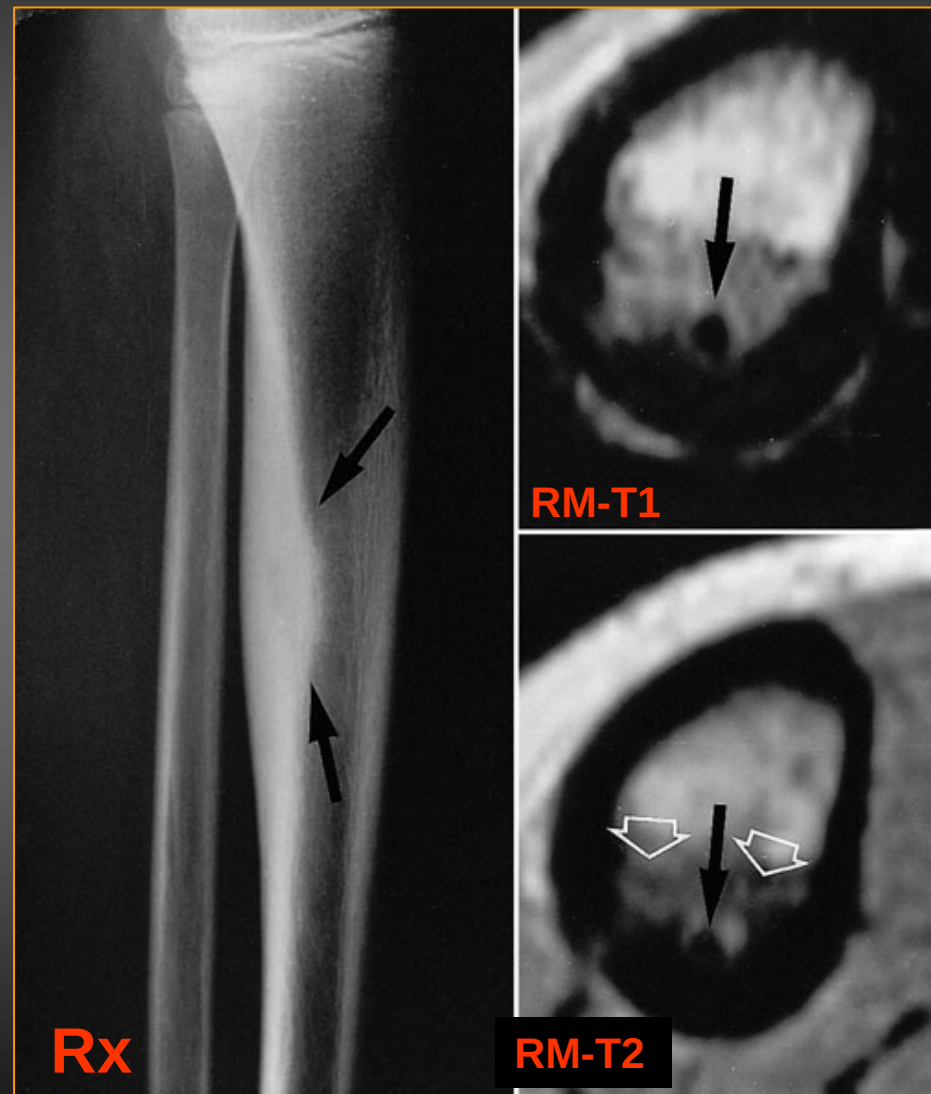
benigni: istiocitoma fibroso

maligni: istiocitoma fibroso maligno, t.giganto-cellulare

OSTEOMA OSTEOBLASTICO (seno frontale)



OSTEOMA OSTEOIDE (tibia)



DIFFERENTI QUADRI DI OSTEOSARCOMI



osteolitico

osteogenico

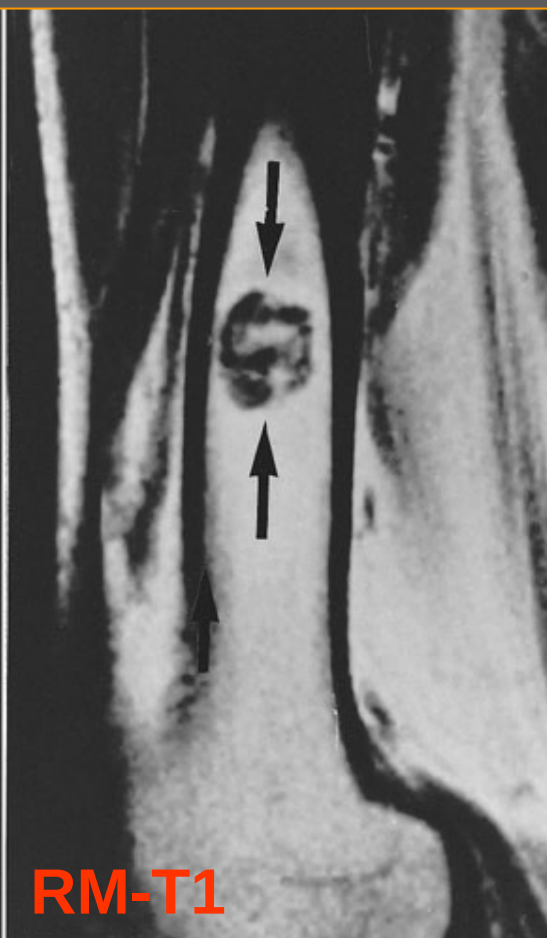
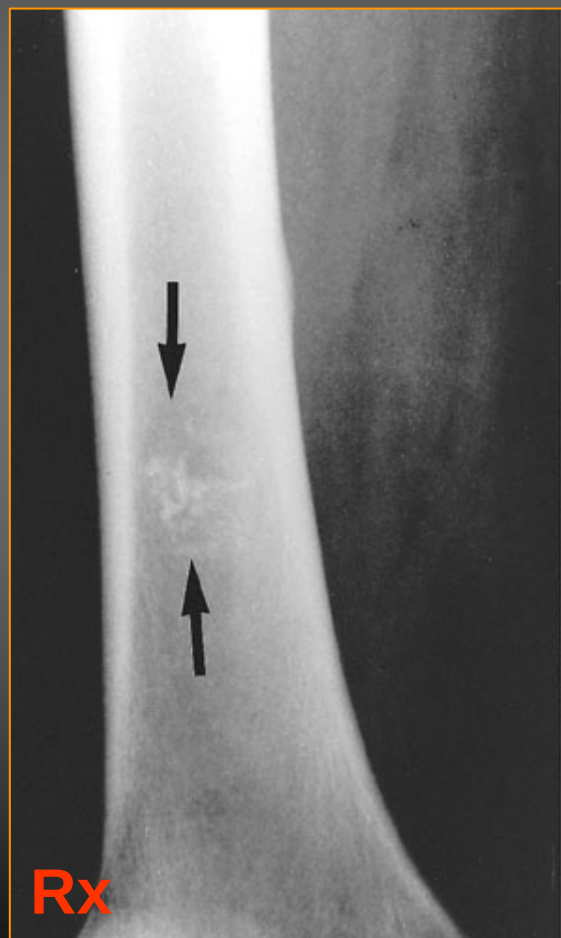
“spiculare”

osteochondroma ossificante

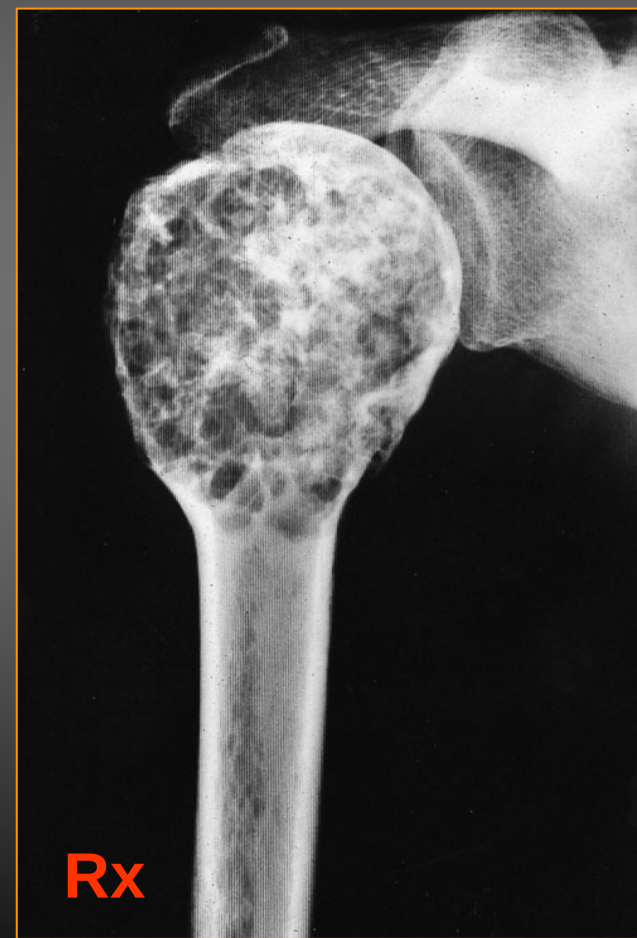
condromi multipli



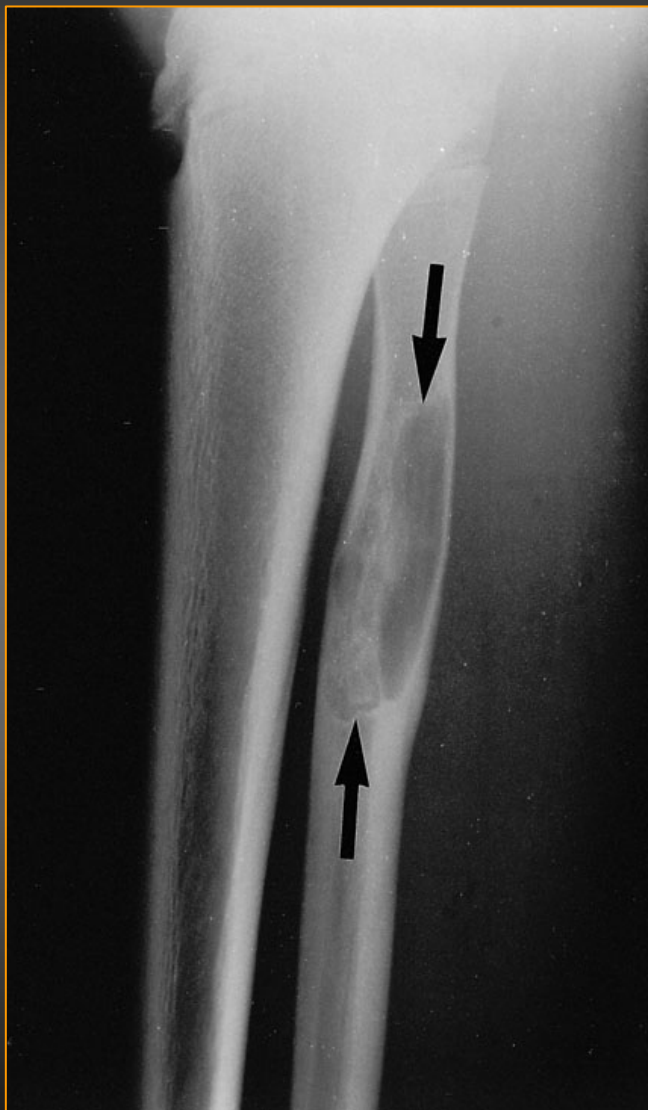
ENCONDROMA



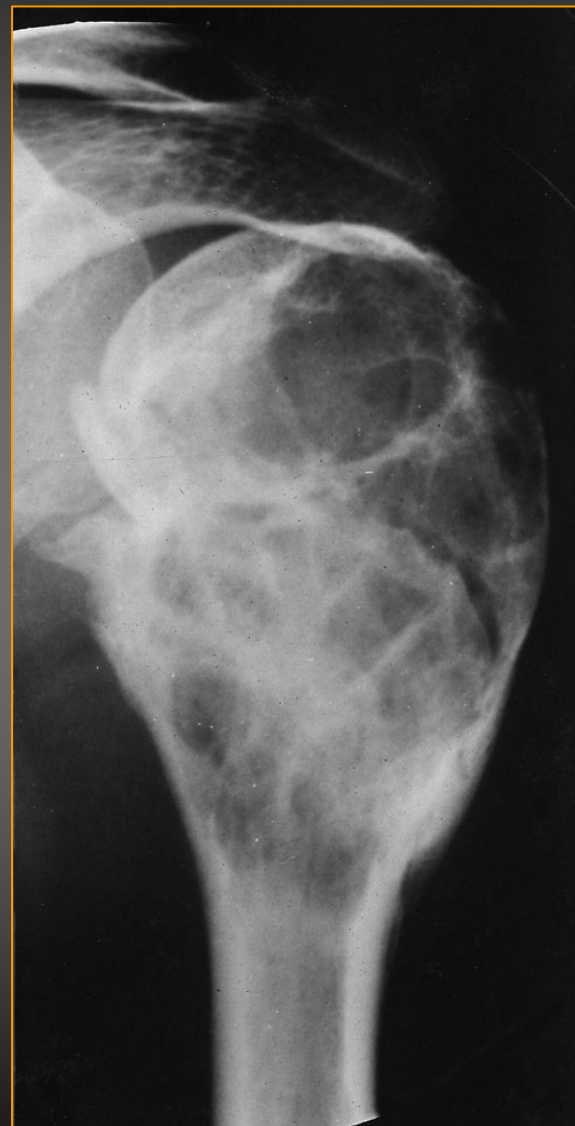
CONDROBLASTOMA BENIGNO



FIBROMA OSSEO NON OSSIFICANTE



TUMORE GIGANTOCELLULARE



Malattie delle ossa (3)

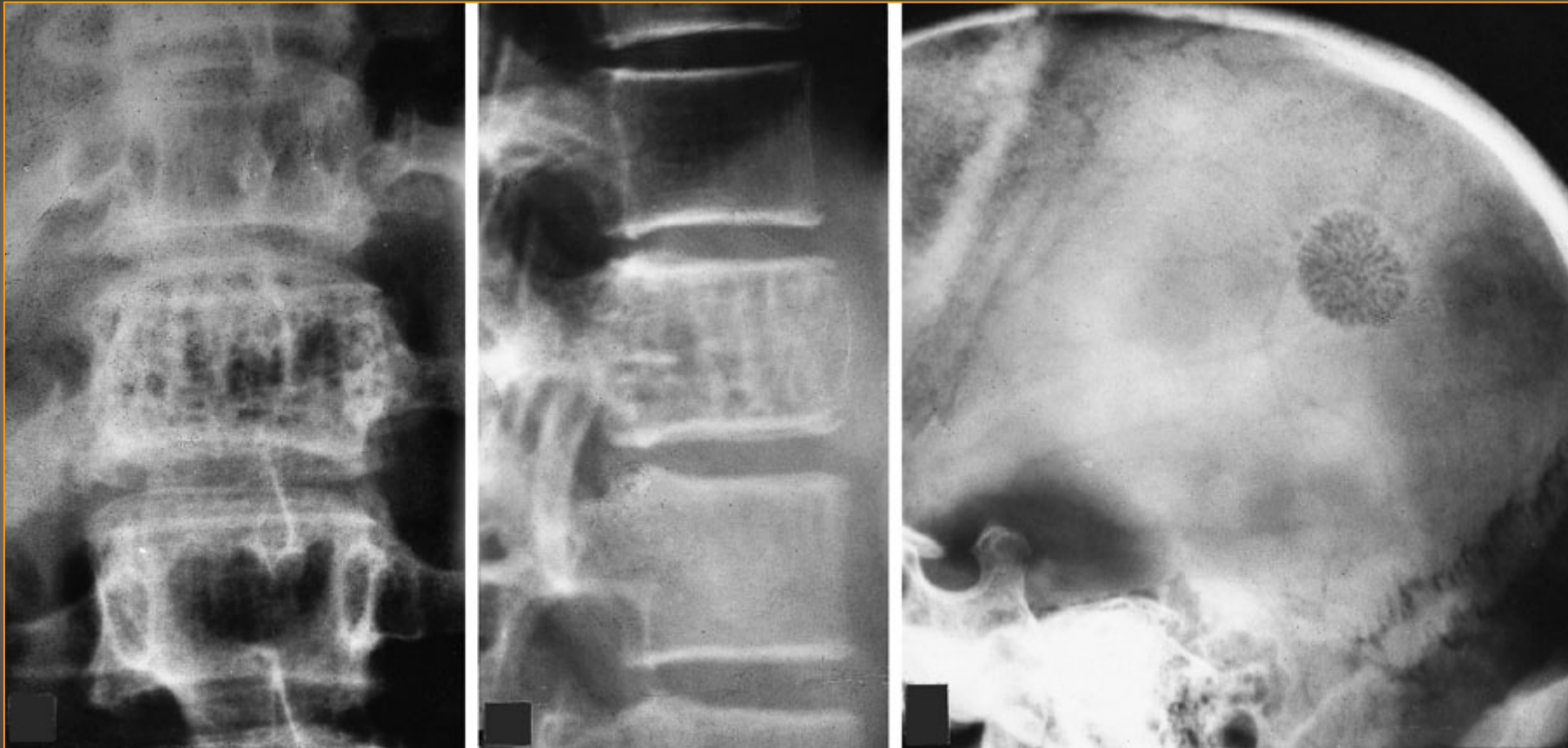
-TUMORI PRIMITIVI

- costituiti da tessuto adiposo
- a differenziazione vascolare
 - benigni: emangiomi
 - maligni: angiosarcomi
- a differenziazione ematopoietica
 - leucemie acute infantili, linfomi
- discrasie plasmacellulari: mieloma plasmacellulare
- tumori a piccole cellule: sarcoma di Ewing
- tumori a origine dalla notocorda: cordoma

-METASTASI

- osteolitiche, osteoblastiche, miste

ANGIOMI OSSEI



**CORPO VERTEBRALE
aspetto "a palizzata"**

**TAVOLATO CRANICO
aspetto areolare**

SARCOMA DI EWING



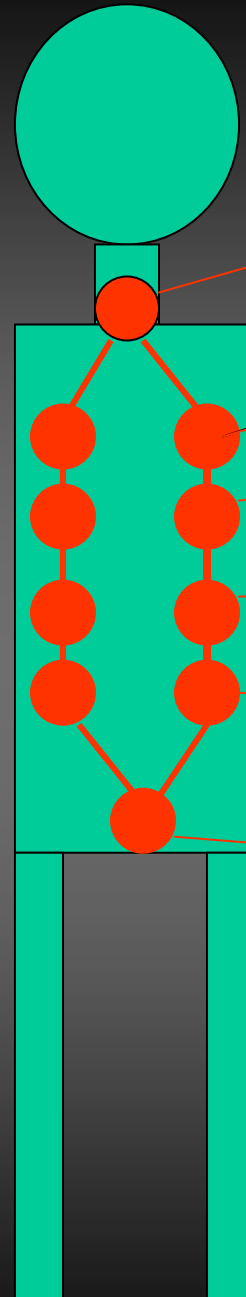
METASTASI SCHELETRICHE

**altri tumori
ghiandolari:**

-pancreas

-colon

-ovaio



tiroide

mammella

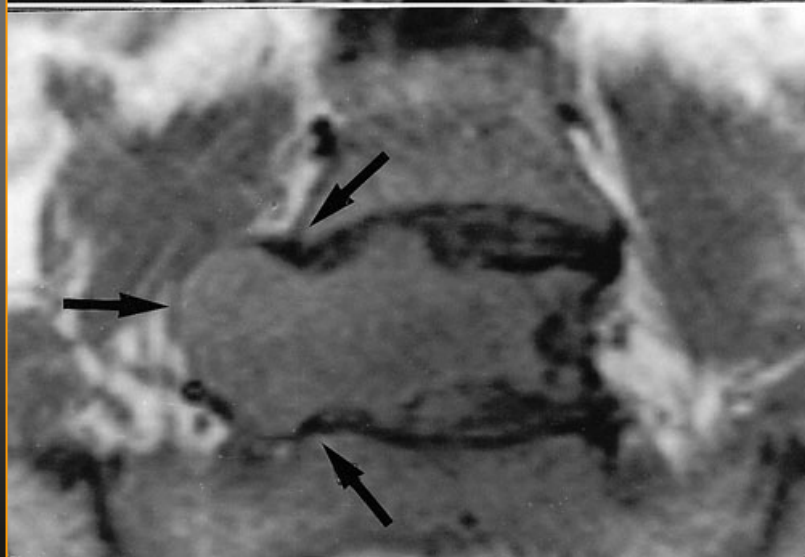
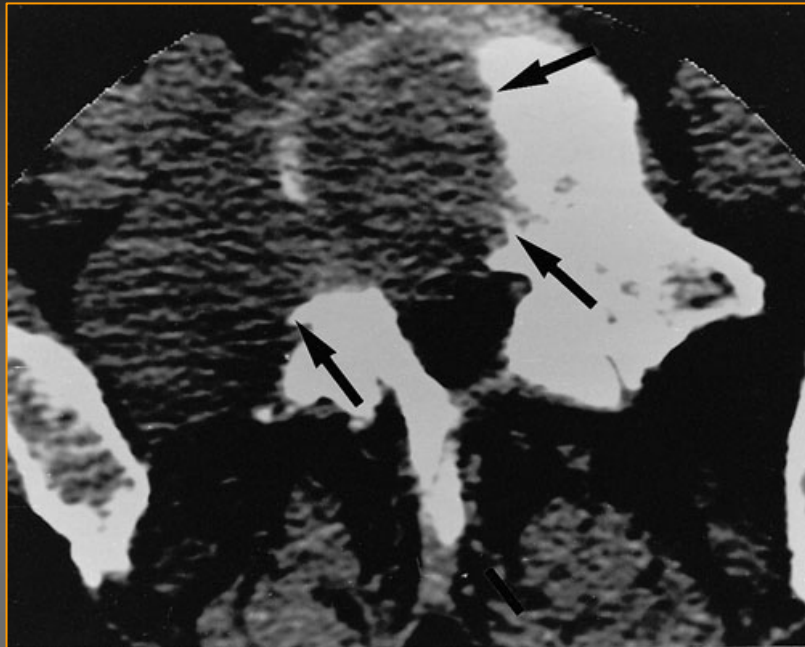
polmone

surreni

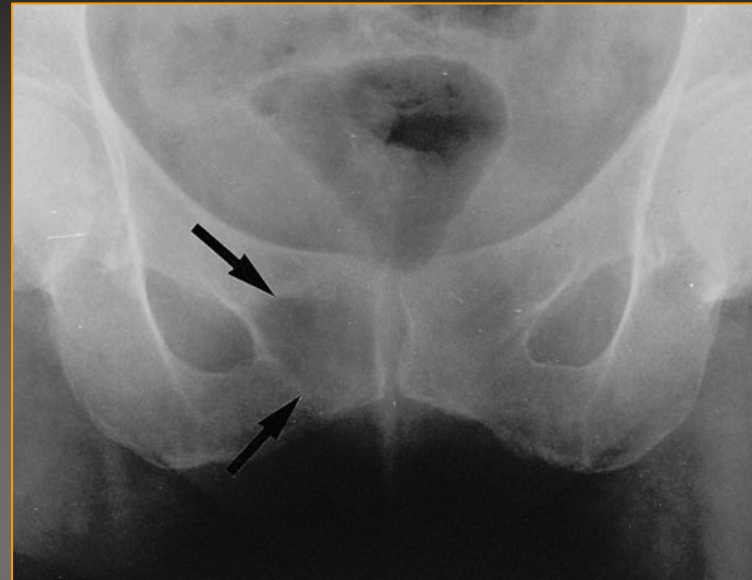
reni

prostata

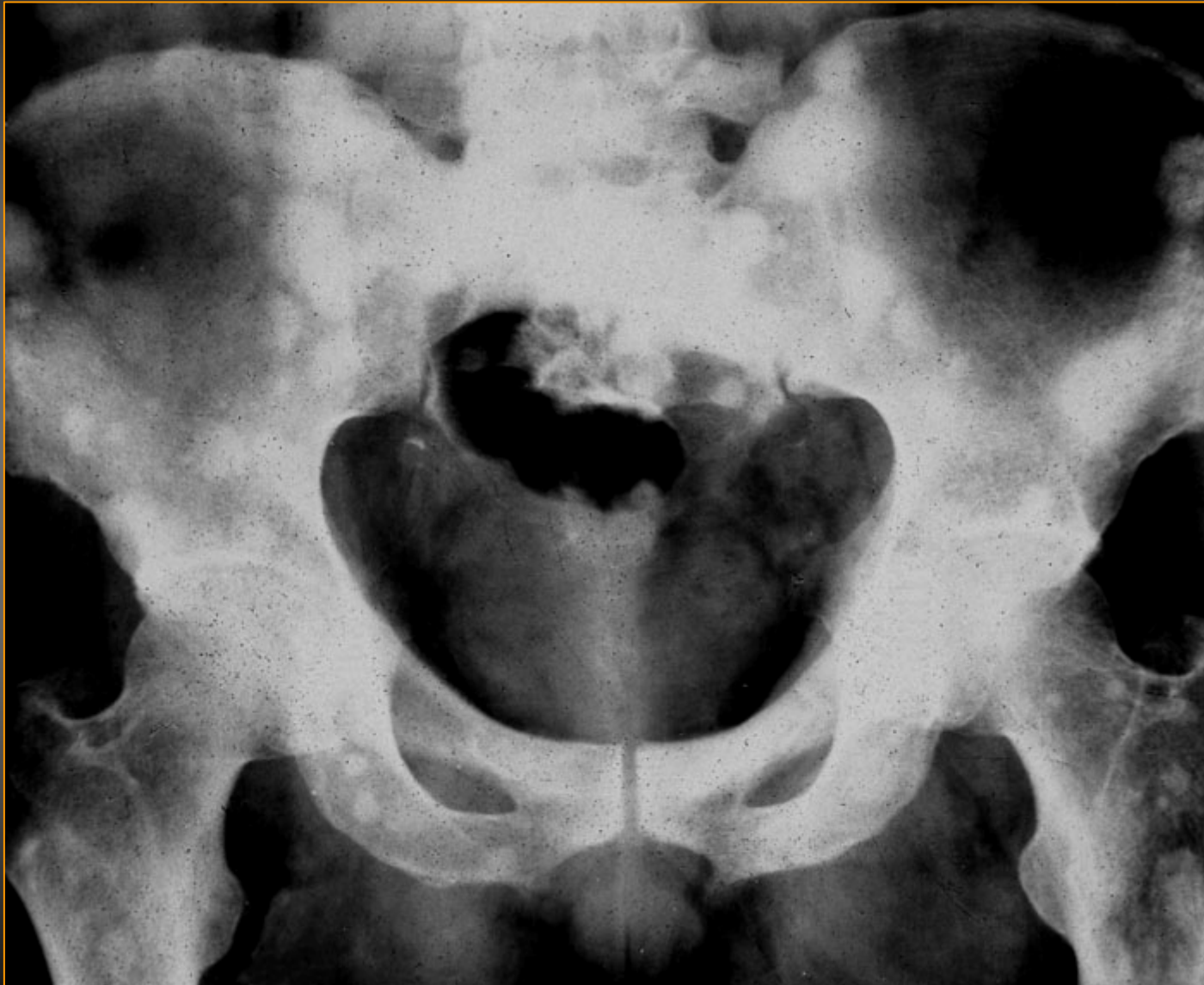
MIELOMA PLASMACELLULARE



METASTASI OSTEOLITICA



METASTASI OSTEOLASTICHE (ca. prostata)



MALATTIE DELLE ARTICOLAZIONI

-ARTROPATIE DEGENERATIVE

-ARTROPATIE INFIAMMATORIE

-ARTRITE REUMATOIDE

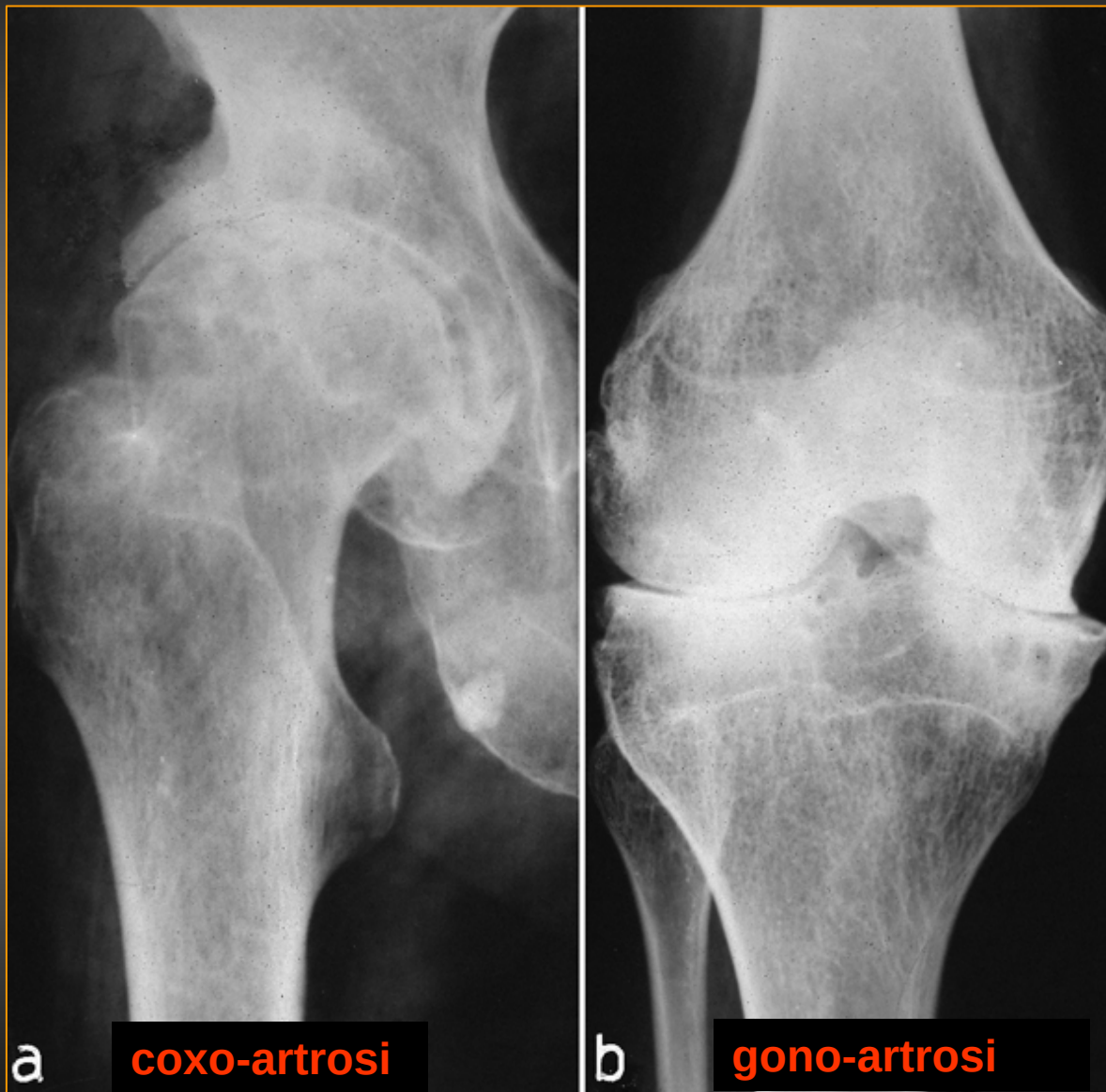
-ARTRITE REUMATOIDE GIOVANILE

-SPONDILOARTROPATIE SIERONEGATIVE
(spondilite anchilosante, s.di Reiter, a.psoriatica)

-ARTROPATIE METABOLICHE ED ENDOCRINE
(gotta, a.da deposito di cristalli, alcaptonuria)

-ARTROPATIE NELLE P. DEL CONNETTIVO: LES,
sclerodermia

ARTROPATIA DEGENERATIVA



SPONDILO-ARTROSI DEFORMANTE



ARTRITE REUMATOIDE

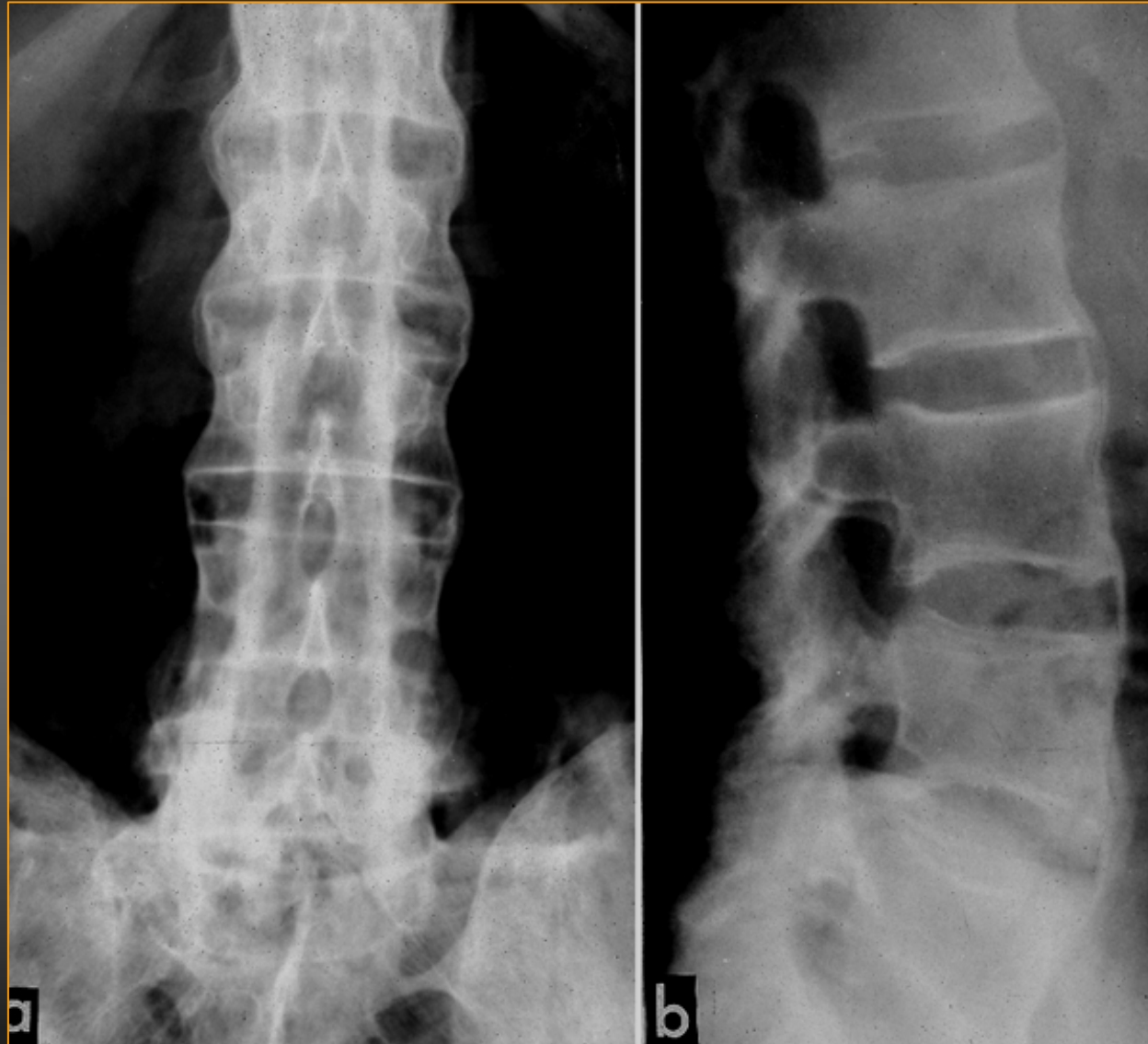


fase conclamata



fase iniziale

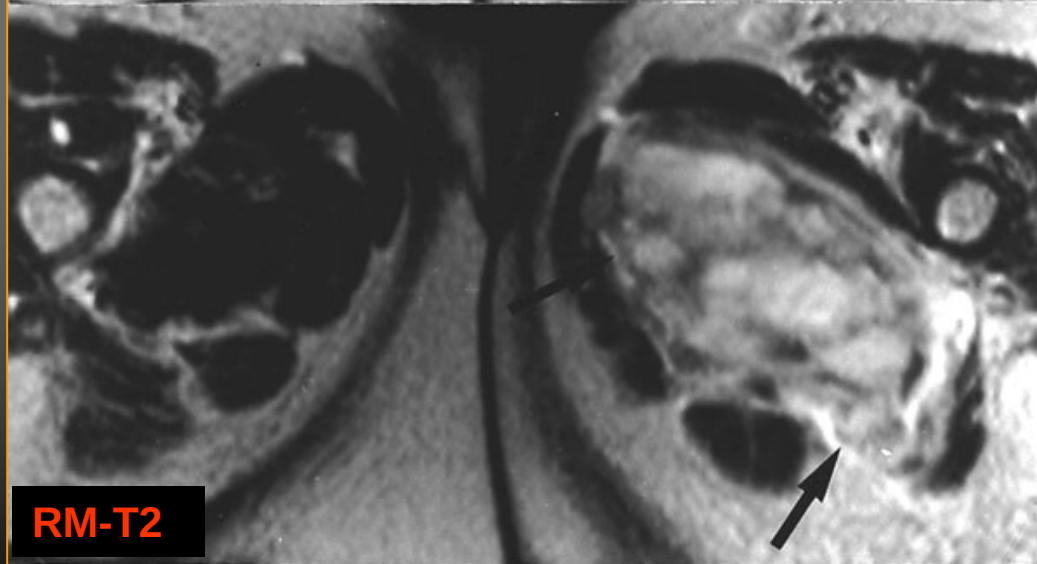
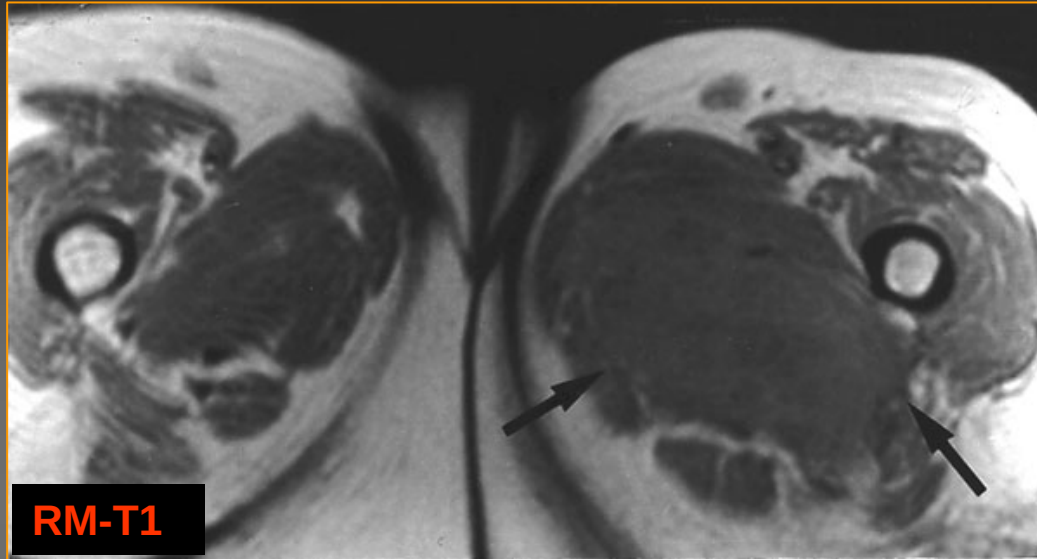
SPONDILITE ANCHILOPOIETICA



Ecotomografia: EMATOMA MUSCOLARE TRAUMATICO

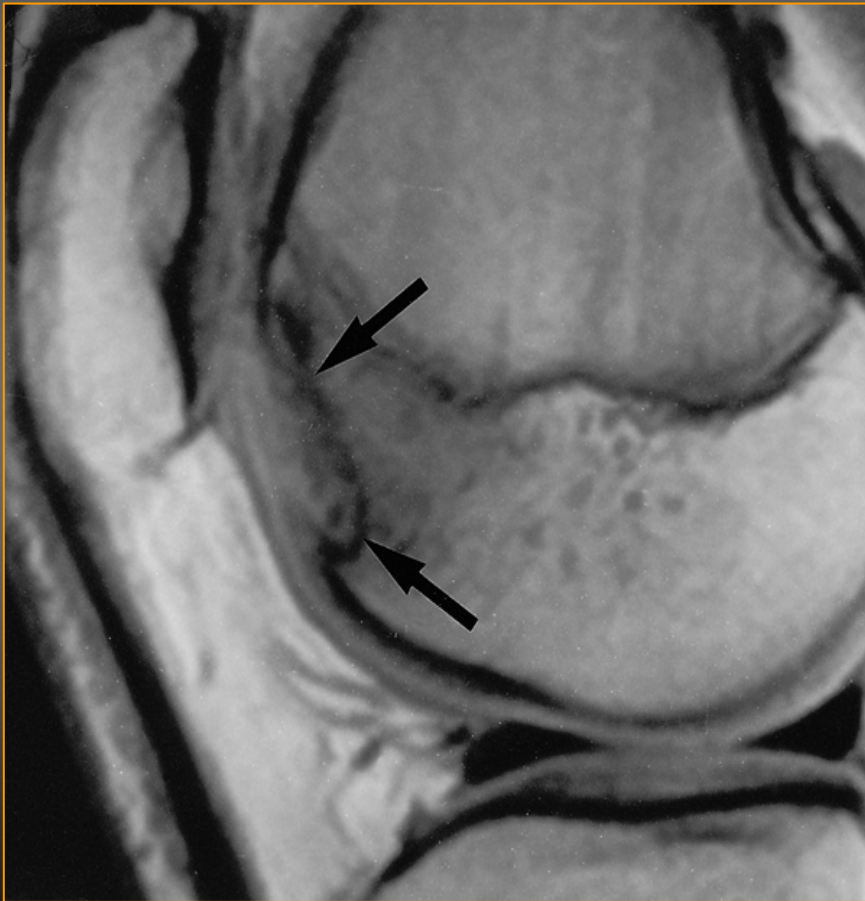


SARCOMA DELLE PARTI MOLLI MUSCOLARI DELLA COSCIA

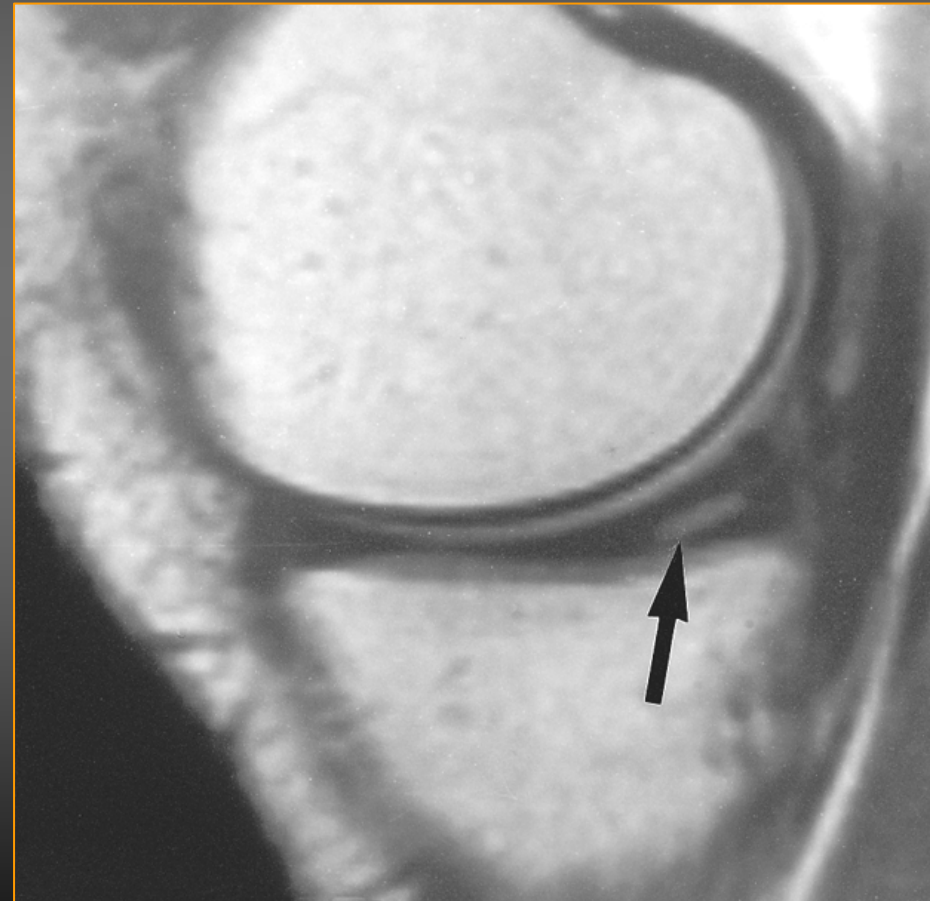


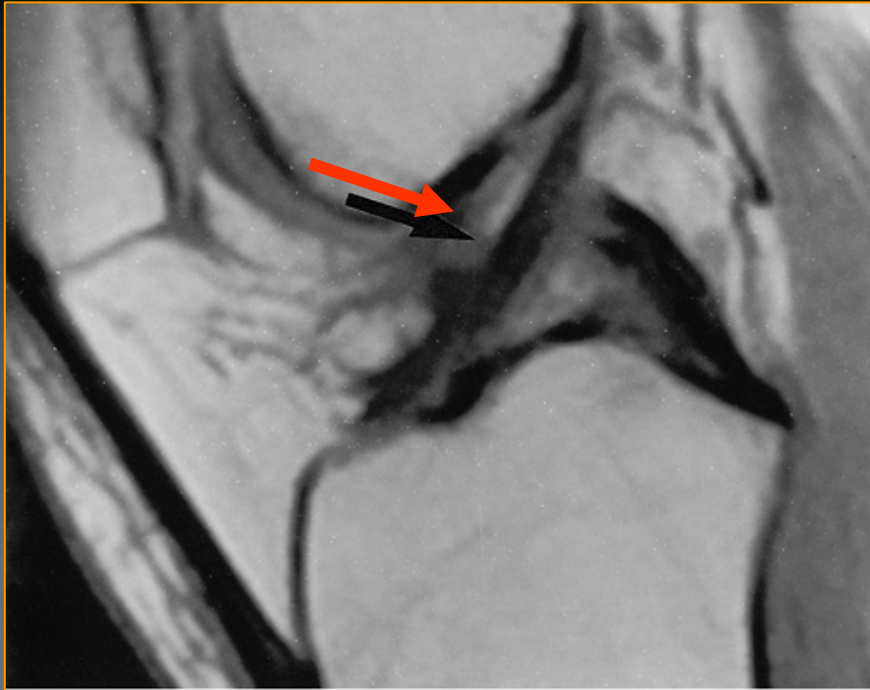
PATOLOGIA DEL GINOCCHIO

osteocondrite dissecante



rottura menisco mediale





**Legamento crociato
anteriore sano**

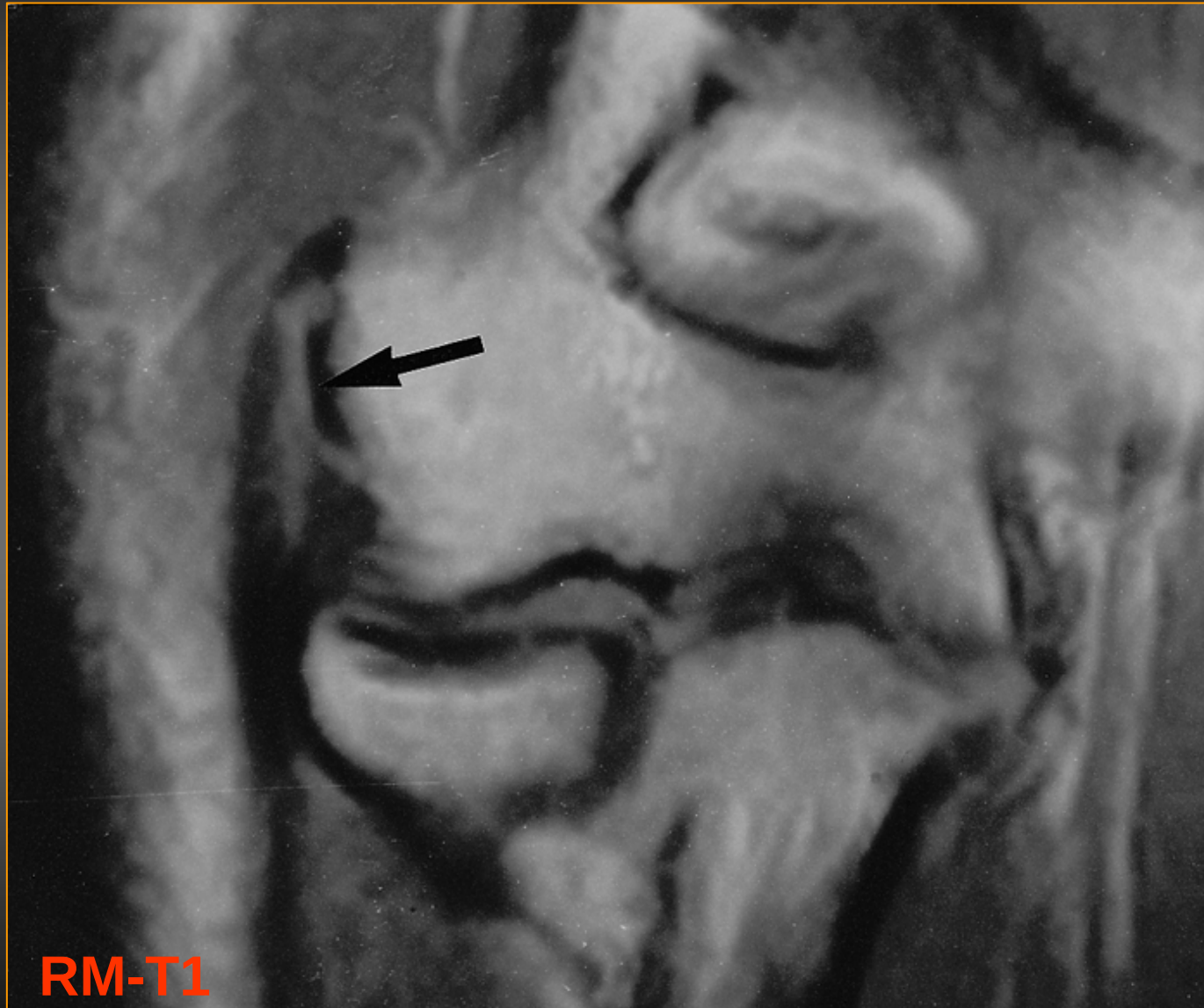


**Legamento crociato
anteriore rotto**

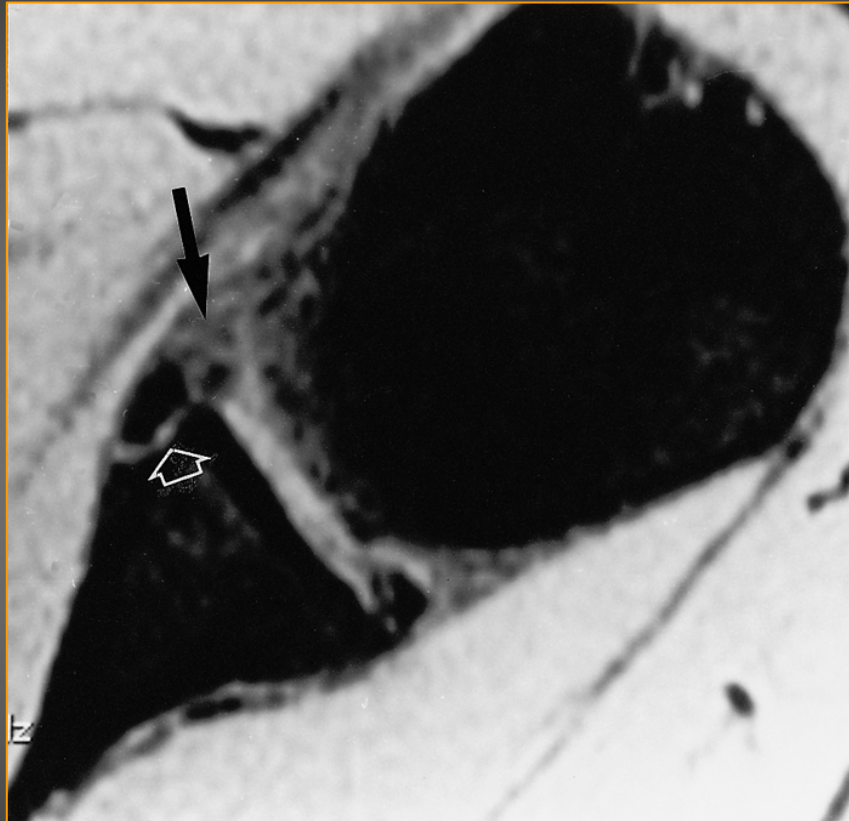
TENDINOSI DEL ROTULEO



EPICONDILITE DEL GOMITO



RM: PATOLOGIA DELLA SPALLA



**INSTABILITA' da rottura del
cercine glenoideo**

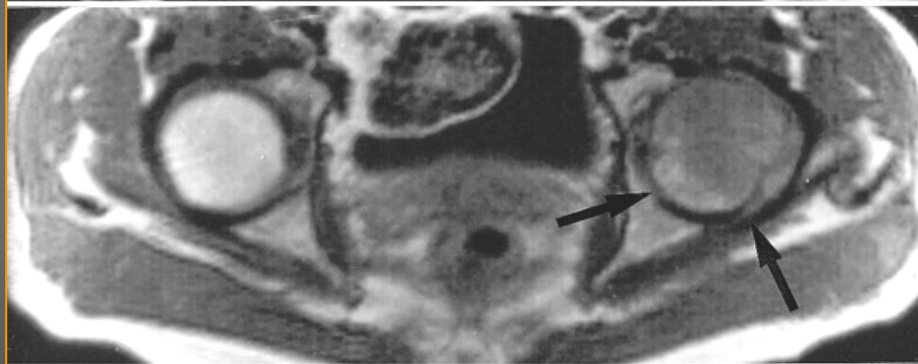


**Rottura della "cuffia dei rotatori"
tendine del sovraspinoso**

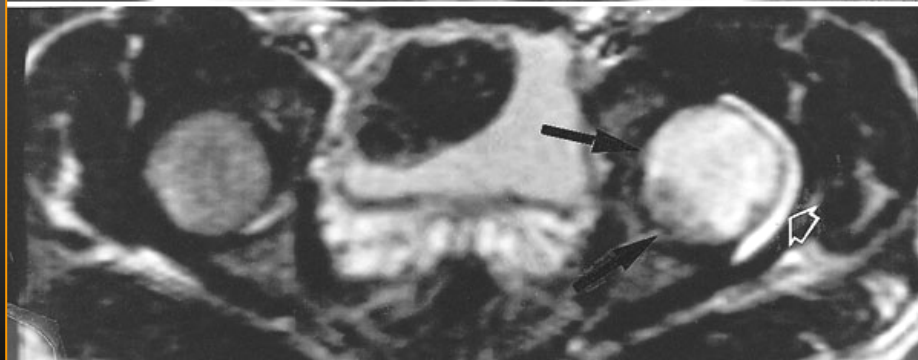


ALGODISTROFIA ANCA DESTRA

Rx



RM-T1



RM-T2

CAVIGLIA: rottura del legamento peroneo-astragalico anteriore (RM assiale T2)

