


IMAGE MODALITIES IN Bone Tumors


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GENERAL CONSIDERATION

1. AGE
 2. GENDER
 3. TUMOR LOCATION
 4. RADIOGRAPHY
- 
- A series of several parallel white lines of varying lengths, slanted diagonally upwards from left to right, located in the bottom right corner of the slide.

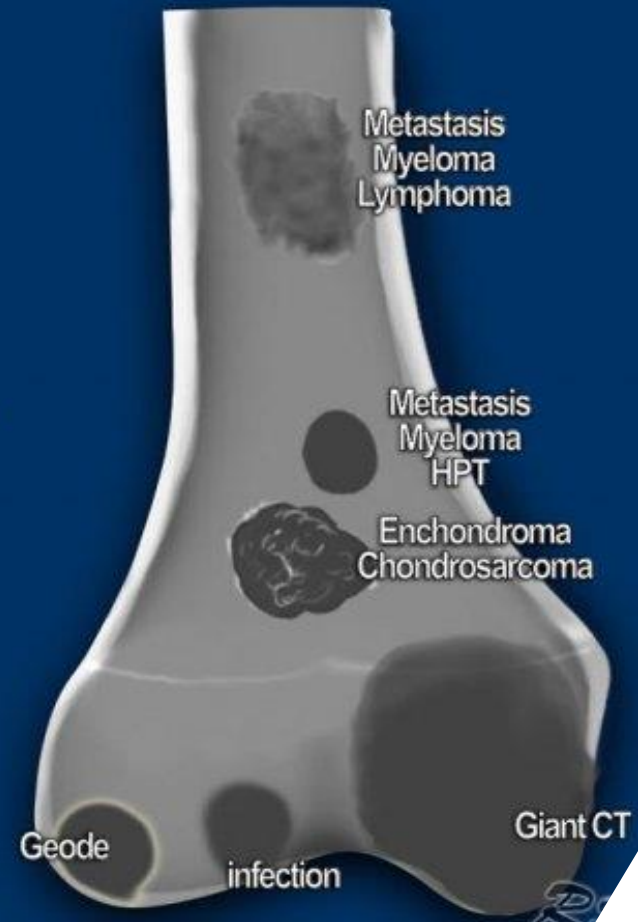
RADIOGRAPHIC DIFFERENTIATION OF MALIGNANT VS BENIGN TUMORS

- * TRANSITIONAL ZONE
 - * TYPE OF PERIOSTEAL REACTION
 - * CORTICAL DISRUPTION
 - * SOFT TISSUE COMPONENT
- 
- A series of white lines of varying lengths and orientations, including a long diagonal line and several shorter parallel lines, are positioned in the bottom right corner of the slide.

< 30 years




> 30 years




AGE:

* ACUTE LEUKEMIA	0 – 1 YO
* METASTATIC NB	1 – 5 YO
* EWING SARCOMA	5 – 15 YO
* OSTEOGENIC SARCOMA	15 – 25 YO
* LYMPHOMA	25 – 40 YO
* METASTASIS & MM	40 – 60 YO
* CHONDRO & FIBROSARCOMAS	60 – 80 YO

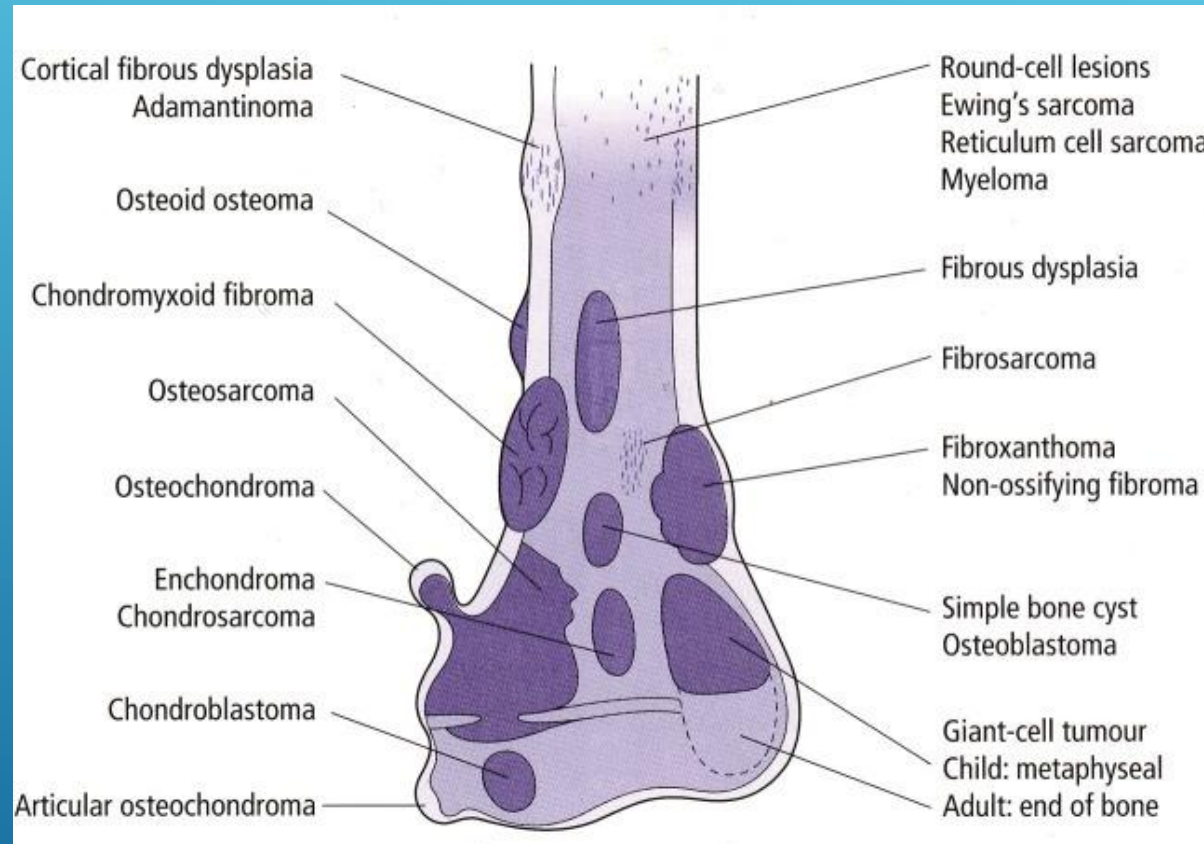
SYMPTOMS:

- * BONE PAIN
 - * SWELLING AND TENDERNESS NEAR THE AFFECTED AREA
 - * WEAKENED BONE, LEADING TO FRACTURE
 - * FATIGUE
 - * UNINTENDED WEIGHT LOSS
- 
- A series of white lines of varying lengths and orientations are positioned in the bottom right corner of the slide, creating a modern, abstract graphic element.

INTERPRETATION OF RADIOGRAPHS:

- * WHERE IS THE LESION? IN WHICH BONE AND WITHIN WHICH ANATOMICAL REGION OF THAT BONE?
 - * WHAT IS IT DOING TO THE BONE?
 - * HOW IS THE BONE RESPONDING?
 - * WHAT IS IN THE LESION?
- 
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WHERE IS THE LESION?



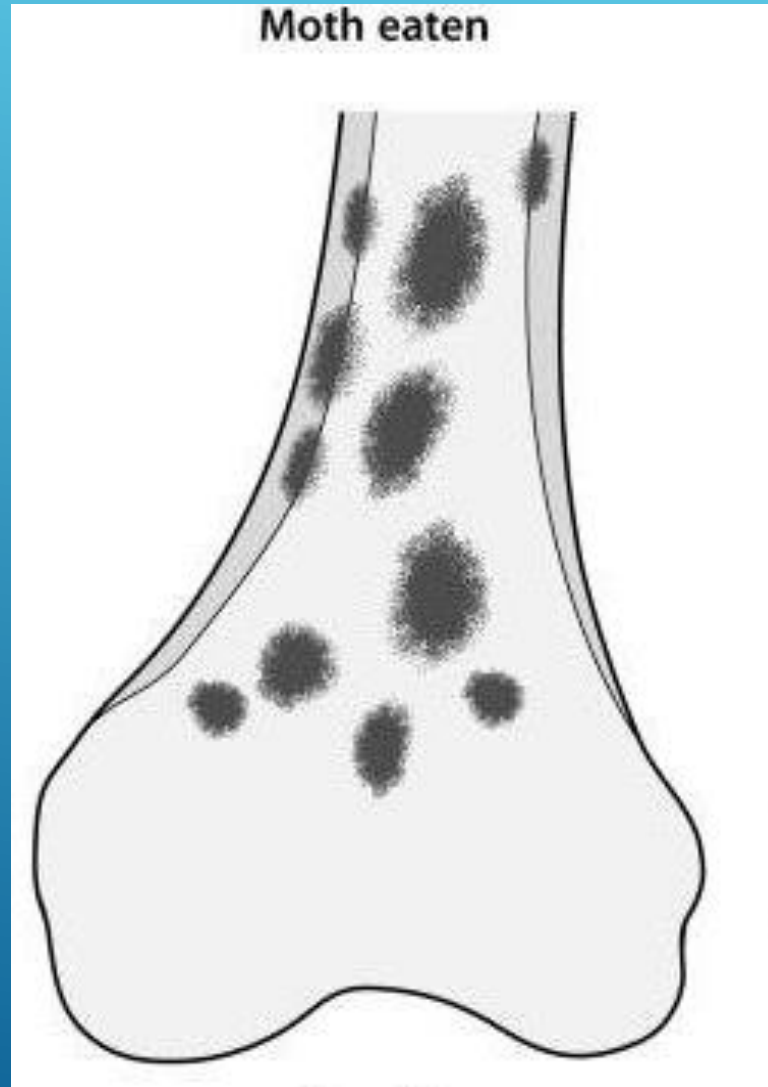
WHAT IS IT DOING TO THE BONE?

- * OSTEOLYSIS
- * OSTEOLASTIC REACTION
- * MIXED

GEOGRAPHIC BONE DESTRUCTION




MOTH-EATEN APPEARANCE



PERMEATIVE APPEARANCE

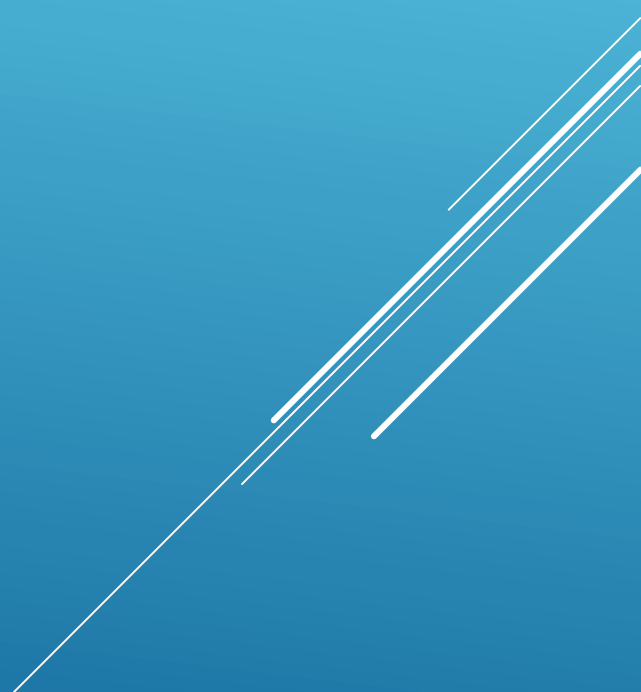


WHAT IS THE BONE DOING?


- * NO RESPONSE
 - * PERIOSTEAL REACTION
 - * ONION SKIN
 - * CODMAN TRIANGLES
 - * SUN BURST OR HAIR-ON-END
- 
- A series of white diagonal lines of varying lengths and thicknesses, located in the bottom right corner of the slide, creating a modern, abstract graphic element.

WHAT IS IN THE LESION?

- * OSSEOUS MATRIX
- * CHONDROID MATRIX



MALIGNANT BONE TUMORS

- * ACUTE LEUKEMIA
 - * METASTATIC NB
 - * EWING SARCOMA
 - * OSTEOGENIC SARCOMA
 - * LYMPHOMA
 - * METASTASIS & MM
 - * CHONDRO & FIBROSARCOMAS
- 
- A series of white diagonal lines of varying lengths and thicknesses, located in the bottom right corner of the slide.

ACUTE LEUKEMIA



METASTATIC NB

R



EWING SARCOMA



OSTEOGENIC SARCOMA



OSTEOGENIC SARCOMA



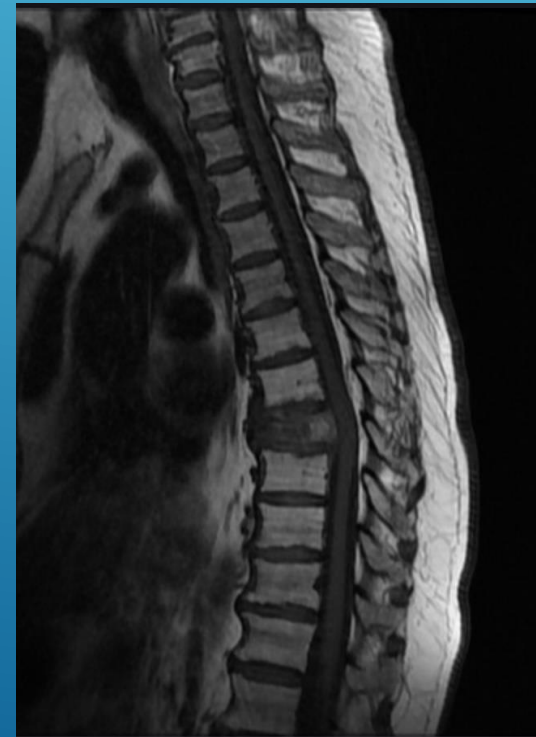
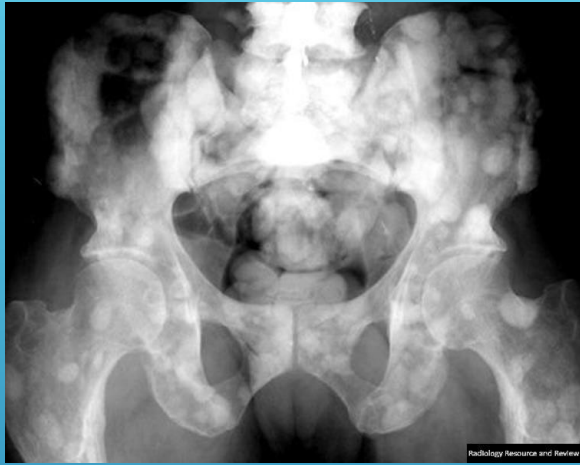
LYMPHOMA



METASTASIS & MM



METASTASIS & MM



CHONDRO & FIBROSARCOMAS



THE END