



Indications and interpretation of bone scintigraphy
Indications et interpretation de la scintigraphie osseuse
Indicaties en interpretaties van de botscan

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Normal bone scintigraphy and variants

Bone scintigraphy

Key points needed for a correct bone scan analysis:

- History of the patient has to be known
- Except for particular cases, total body scan is preferable
- Systematic analysis is mandatory
- Renal images have to be inspected for asymmetry, absence of one kidney, low-lying kidney (anterior pelvic view), renal tract obstruction
- Bladder activity can mask pelvis: patient should be asked to empty the bladder before pelvic images
- Vascular dynamic phase, quantifications, SPECT, SPECT/CT are helpful in numerous cases

Frequently observed normal variants

- Hyperostosis frontalis: can mimic Paget's disease of the skull
- muscular insertions: are frequently observed on the ribs

Most frequently observed soft tissue uptake

- breast: generally non specific
- heart: cardiac amyloidosis
- tumoral uptake

Child bone scintigraphy

Normal variants

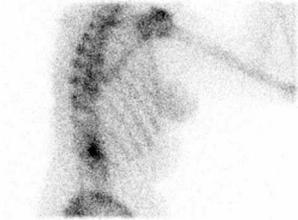
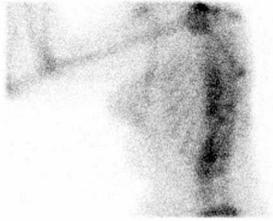


Typical frontalis hyperostosis: note increased uptake by both frontal bones. This is a common finding without pathological condition

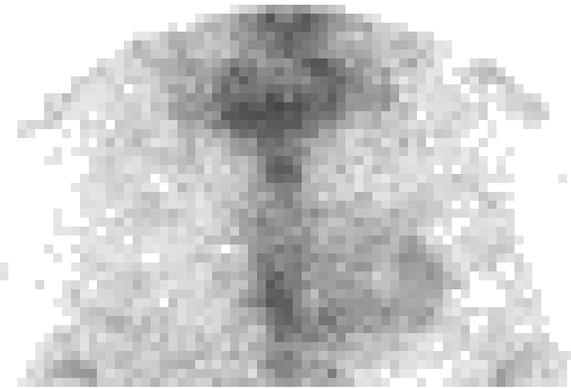


Increased aligned faint uptake by the ribs indicates muscular insertions. In this particular case, presence of an anterior right rib fracture and photopenic aspect of upper dorsal spine post radiotherapy

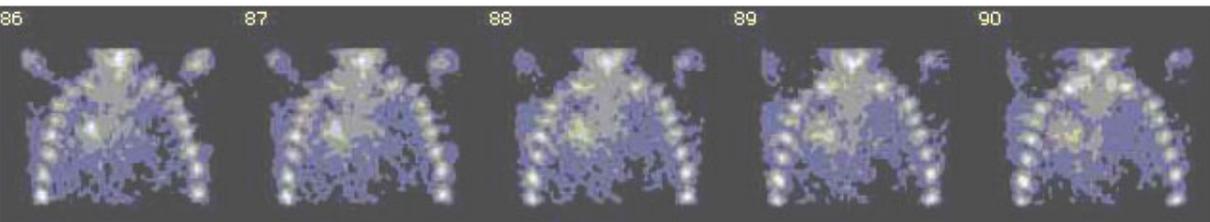
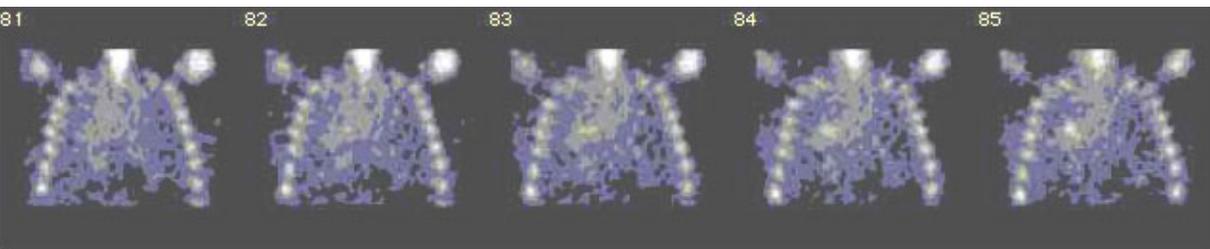
Soft tissue uptake



Breat uptake can be seen without pathological condition

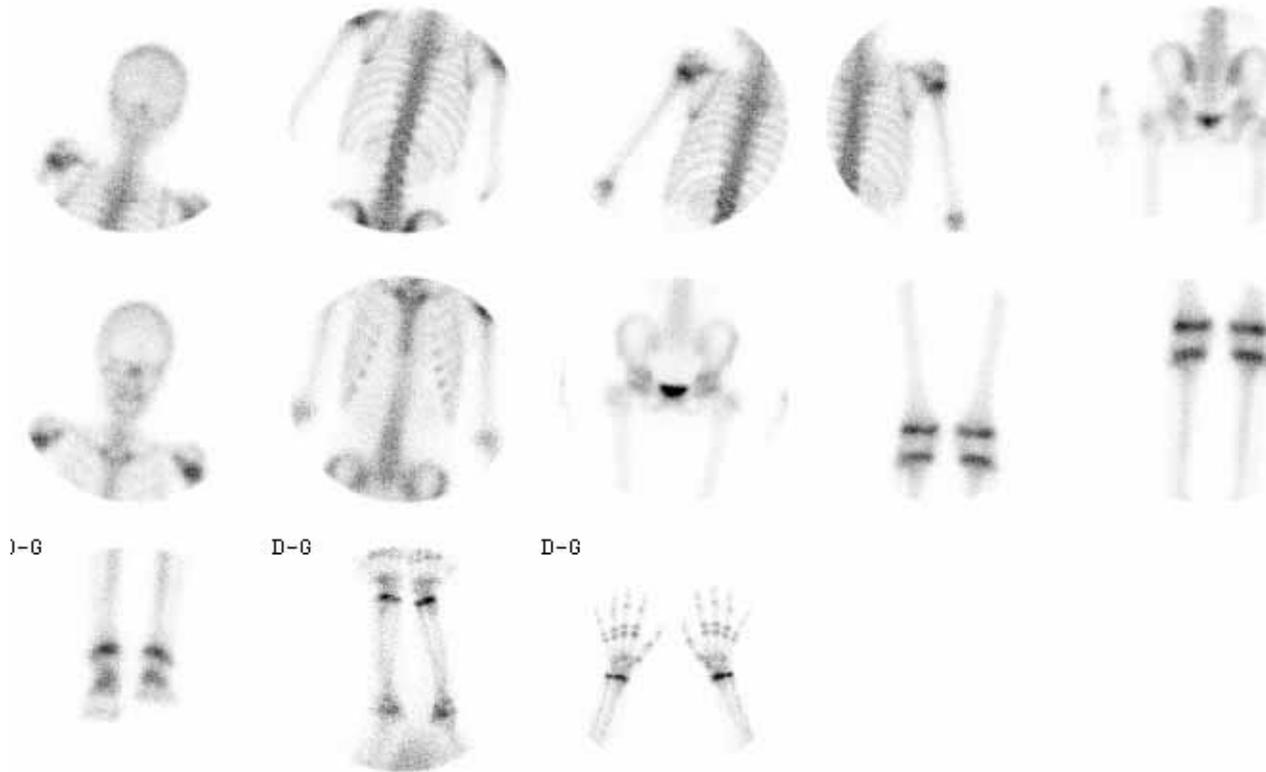


Cardiac uptake is observed in case of amyloidosis, especially in the elderly



Tumoral uptake can be observed: uptake by a pulmonary neoplasm

Child bone scintigraphy



Physiological increased activity of growth plates (major osteoblastic activity)

Bone scan abnormalities in children may be subtle and are often detected only by careful comparison with the corresponding contralateral part of the skeleton

Intense activity in the epiphyses makes it difficult to detect small lesions in bone adjacent to the epiphyses: magnified views using the pinhole collimator can be essential. The child should be asked to empty the bladder