37 y/o male with bony protuberance from head

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Osteoma
Radiographs of the skull demonstrating a homogenously dense ovoid mass in the left frontal region.
Radiographs demonstrating the homogenously dense mass arising from the outer table of the frontal bone (arrow). Smooth borders without evidence of soft tissue mass, cortical destruction, or other aggressive features.
Osteoma

Imaging Features

- Small, well defined oval or circular lesion
- Homogenously dense
- Arises from outer table
- Spares sutures
- Occasionally extends into frontal and ethmoid sinuses
- No aggressive features
- Homogenously low T1 signal
- Variable T2 signal
- No post-gadolinium enhancement
Osteoma

General Features

- Composed of variable proportions of compact and trabecular bone
- Arises from outer table of mainly the frontal and parietal bones
  - Usually around the paranasal sinuses
  - Frontal > Ethmoid > Maxillary > Sphenoid
- Rarely arises from the inner table
  - intra-diploic osteoma
- Other rare locations: Mandible, long bones
- Usually singular
  - If multiple it should raise suspicion for Gardner’s syndrome.
- Variable signal on MRI T2 weighted images depending on the content of compact and trabecular bone.
- Smooth margins without cortical destruction or associated soft tissue mass.
References
