Ewing Sarcoma - Clavicle
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History
17 year old male with slowly enlarging firm clavicular mass.

Diagnosis
Ewing Sarcoma

Additional Clinical
No history of trauma.
Pathology-Sheets of small round blue cells with minimal cytoplasm; positive membranous CD99 and nuclear FLI-1 and negative EMA, HHF-35, and LCA.

Discussion
PET-CT may be helpful in both initial assessment and for re-staging of Ewing sarcoma. PET-CT will more accurately determine the extent of disease at initial staging. PET-CT also offers metabolic response in addition to anatomic response to preoperative chemotherapy on restaging examinations. FDG-PET in detecting osseous metastatic disease from Ewing sarcoma are superior to those of bone scintigraphy. Uncovering additional metastatic disease will allow targeted radiotherapy and ultimately influence patient outcome. It is not uncommon to have anatomic distortions at the primary site related to treatment which are also mildly photodense on scintigraphy. PET-CT will likely play a role in the differentiation of post-treatment changes from recurrent Ewing sarcoma.

Findings
CT-Axial and coronal reformat show permeative osteolysis of the right clavicle with sunburst periosteal new bone and minimal extraosseous soft tissue mass.
PET-Marked focal hypermetabolic right clavicular lesion with no evidence of metastatic disease. Note the physiologic activity in the forearm musculature.

Reference
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