History: 42 year old with three years of finger pain

Sagittal PD of the involved finger
Findings

A high signal mass is present about the dorsum of the distal phalanx where it has caused indolent erosion along the dorsum of the distal phalanx. The mass demonstrates marked high signal on the inversion recovery sequence and high signal on the PD sequences. Although, not employed in this case, the mass would typically demonstrate marked enhancement following gadolinium administration.
High signal mass

Indolent erosion of the dorsum of the distal phalanx
High signal mass

Erosion of distal phalanx
Diagnosis: Glomus Tumor

- A glomus tumor is a hamartoma (tissue normally found at a location but growing in a disorganized pattern) of the neuromyooarterial (nm) apparatus. Typically found in women from 30 to 50 years of age, although small, the masses are intermittently, extremely painful. Patients have often 2-3 years of symptoms before seeking treatment. They are as in this case, high in signal and often yield erosion of the underlying bone. Given the classic appearance in this case, no contrast was administered, but as the mass represents proliferation of the nm apparatus, it will avidly enhance. They typically occur at the subungual location as in this case but occasionally extend into the underlying bone.
References:

- http://www.wheelessonline.com/ortho/glomus_tumor
- http://www.bonetumor.org/tumors-vascular-tissue/glomus-tumor