Chondrosarcoma in middle finger

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**Patient history**
This 56-year-old patient is suffering from a destructively growing bone tumor in the right middle finger. He has had an enchondroma before, and recurrent enchondroma is suspected.

**MR examination**
MRI is requested for further assessment after x-ray. The Panorama HFO is used with the ST SENSE Wrist coil.

An x-ray examination in two orientations demonstrated extensive eccentric osteolysis with palmar cortical destruction and calcified inner structures.
Results of MR study
The MR images show an expansive destruction of the bony part of the distal phalanx of the middle finger. The tumor shows as a solid lesion with lobulated expanded appearance, partly outside the bone, that covers almost the entire distal phalanx. The tumor has high intensity on T2-weighted images and low intensity on T1-weighted images. Post-contrast images show strong, inhomogeneous enhancement of the tumor matrix. The soft tissue of the distal phalanx may be infiltrated but the middle phalanx is not affected. This is consistent with a cartilage tumor of chondrogenic origin. The extensive destructive area indicates a strong suspicion of chondrosarcoma instead of enchondroma.

Diagnosis
MR images show a large suspicious lesion. Histopathology confirms that it is a highly differentiated chondrosarcoma, predominantly G1, focal G2. Amputation is usually the only treatment of such sarcomas in this anatomical location, as these tumors usually don't metastasize.

Clinical impact of using Panorama HFO
Panorama HFO allows isocentric positioning of the hand and provides excellent resolution to determine the shape, extent and internal structure of the lesion in a small anatomy like the finger.