

# Case Report: Tuberculosis

## 4-Channel Flex Coil

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### Patient history

5-year-old patient, a recent refugee from Africa, presented with restriction of movement and swelling. The plain radiograph demonstrated ill defined extensive lytic permeative lesion in the proximal third of radius. The MR was requested to further define the anatomical boundaries and to determine whether the pathology demonstrated was infective or a tumor.

### Sequence details

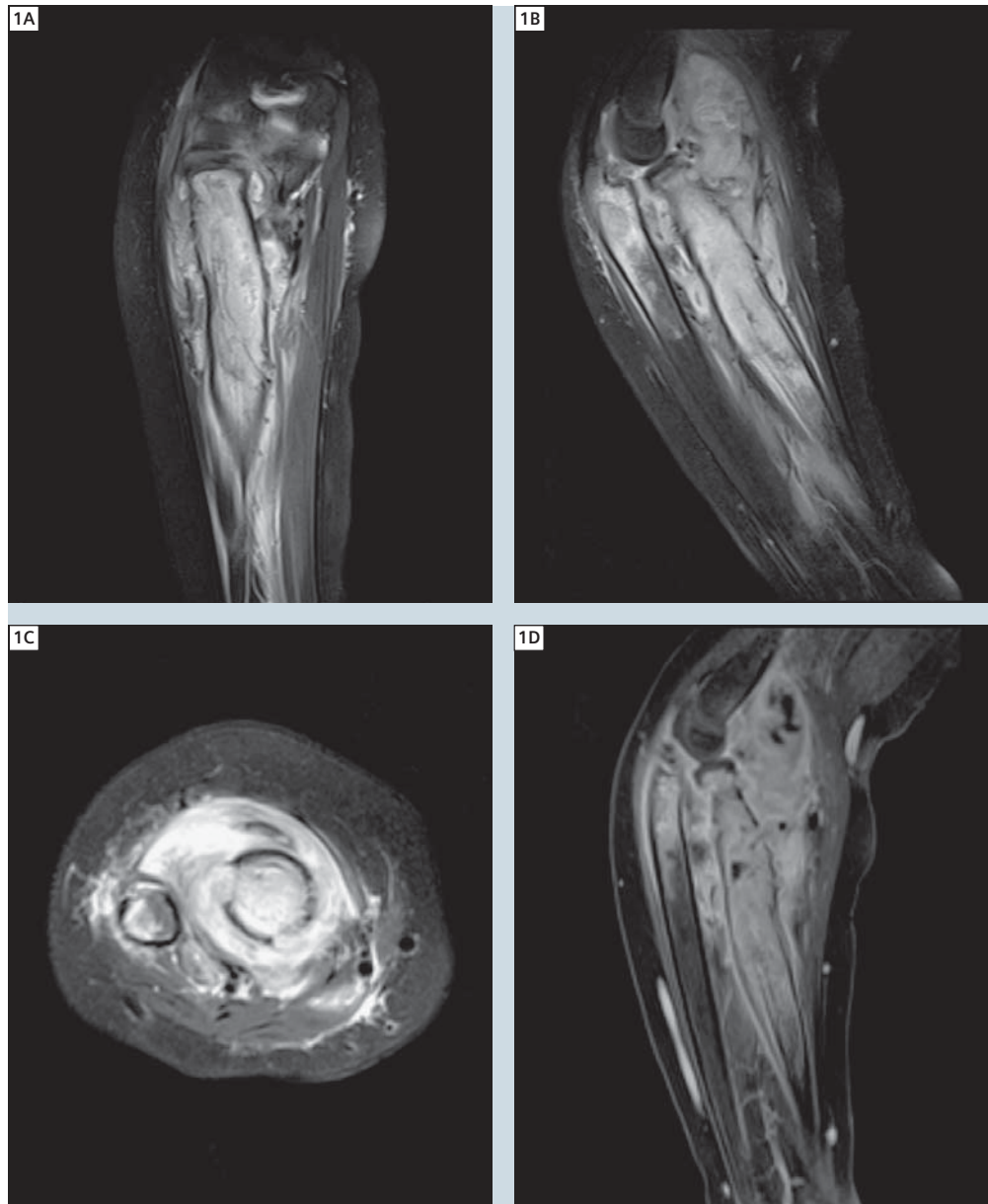
The patient was positioned supine on the MR table on our 3T MAGNETOM Trio, A Tim System with the small 4-channel flex coil wrapped around the proximal forearm. Multiplanar Turbo Spin Echo images were acquired using SPAIR. Post-contrast imaging was obtained using water excitation VIBE.

### Image findings

The appearances are suggestive of an indolent infection such as tuberculosis.

### Comments

The use of SPAIR enabled consistent fat-suppression throughout the area of interest. The field-of-view (FOV) coverage of the small 4-channel flex coil was sufficient to cover the extent of the pathology. The high signal-to-noise ratio (SNR) characteristics of the coil enabled high spatial resolution (in-plane and through plane) in acceptable scan times.



**1** Multiplanar SPAIR images (Fig. 1A, coronal and Fig. 1B, sagittal) and fat-suppressed T1-weighted VIBE images after contrast (Fig. 1C, transversal and Fig. 1D, sagittal) are shown. All images have been acquired using the 4-channel flex coil, providing high signal-to-noise ratio and therefore detailed anatomical information about the pathology. The extent of the lytic involvement of the radius is well delineated. Note the excellent fat saturation in this anatomically difficult area.