

## Proximal tibial pain in a child

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### History

An 11-year-old boy presented with an 8-month history of right tibial pain. Initial diagnosis was patellar tendonitis. After failing to respond to non-steroidal anti-inflammatory medications and activity modification, radiographs were obtained (Fig. 1). Past medical history was unremarkable. Physical examination revealed a waddling gait with a limp on the affected side. His sensory, motor, and vascular examinations showed no deficits. He had a full range of motion of the knee and the primary knee ligaments were

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This investigation was performed at Boston Children's Hospital.

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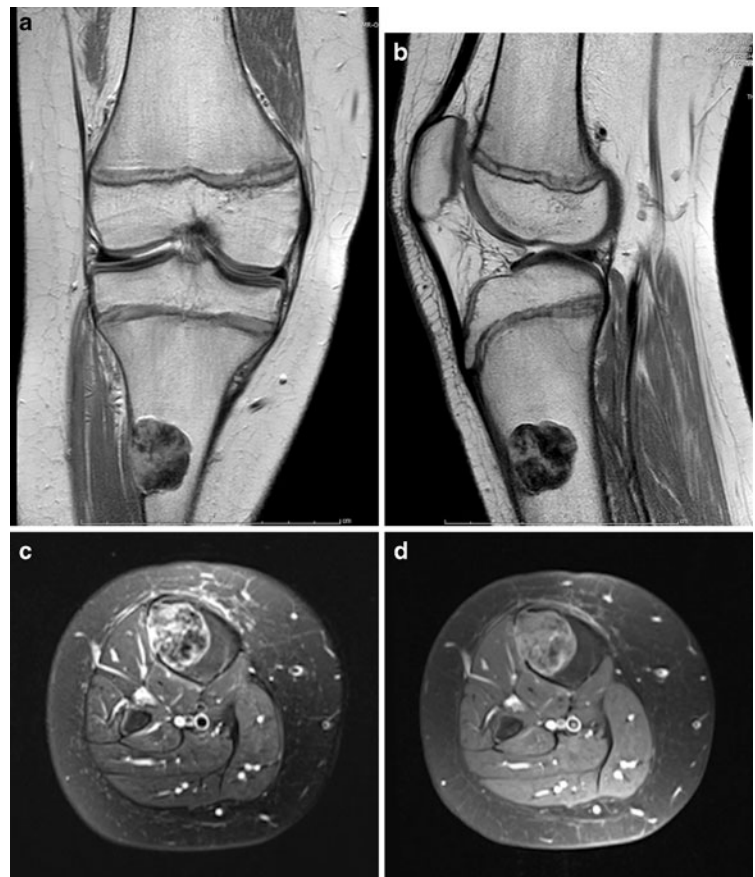
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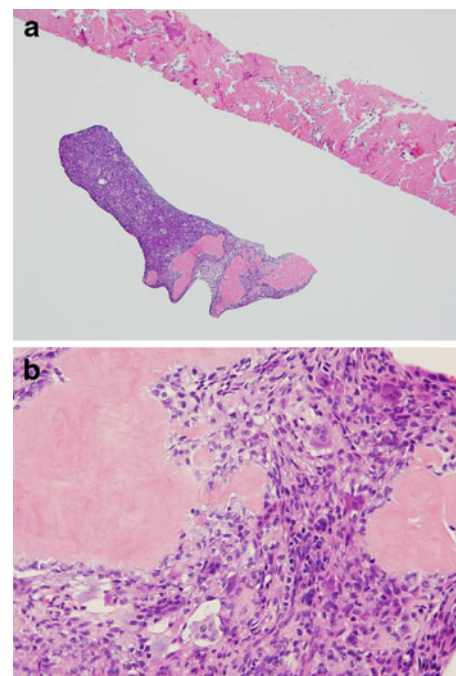


**Fig. 1** a Anteroposterior and b lateral radiographs of the tibia and fibula

**Fig. 2** **a** T1-weighted coronal and **b** sagittal images (repetition time/echo time, 734/21), **c** T2-weighted axial image with fat suppression (repetition time/echo time, 5,320/78), **d** T1-weighted axial image with fat suppression and gadolinium contrast material (repetition time/echo time, 560/21)



**Fig. 3** Whole-body technetium 99 m bone scan



**Fig. 4** **a** Low power (×40, H and E) and **b** higher power (×400, H and E) histological images

intact. There were no palpable inguinal lymph nodes. Laboratory studies obtained at his initial evaluation were notable for normal calcium, PTH, and 1,25-hydroxy vitamin D values; phosphorus and 25-OH Vitamin D levels were both mildly decreased.

Magnetic resonance imaging (MRI) and a Technetium-99 bone scan were performed (Figs. 2, 3). A core needle biopsy was performed and was interpreted as conventional

osteosarcoma by the pathologist at the referring institution (Fig. 4).

What is the diagnosis?

**Disclosures** None of the authors has any financial disclosures.

**Conflict of interest** None.