

IMAGES IN CLINICAL MEDICINE

Bone within Bone — Chronic Osteomyelitis



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AN AFEBRILE 8-YEAR-OLD ETHIOPIAN GIRL PRESENTED WITH A LIMP. TWO YEARS EARLIER, SHE HAD HAD mild trauma followed by “bone infection” and had received short courses of oral antibiotics. Examination revealed a small, pus-secreting wound on the anterior aspect of her left thigh. Her blood count was normal, but her erythrocyte sedimentation rate was 48 mm in the first hour. A radiograph of both legs (Panel A) and an axial computed tomographic scan (Panel B) with reformatting in the sagittal plane (Panel C) showed severe deformity of the left femur, proximal small lytic lesions, destruction and condensation throughout with sequestration (white arrows in Panels A and C and black arrows in Panel B), involucrum formation (arrowheads in all three panels), atrophy of the quadriceps muscles, and a posterolateral sinus (white arrow in Panel B). On open biopsy of the left femur, copious pus was drained. Pathological evaluation showed active, chronic osteomyelitis, with gram-positive cocci and involucrum (a sheath of new bone surrounding the sequestrum [necrosed bone]). A culture grew methicillin-sensitive *Staphylococcus aureus* and *Streptococcus pyogenes*. After drainage and partial resection of the sequestrum, the girl was treated with parenteral antibiotics and underwent orthopedic procedures.

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