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Swollen Ankle with a Hole: Brodie Abscess

A 12-year-old boy presented with a 1-year history of painful swelling of the left ankle. The pain was recurrent, exacerbated by mechanical loading, occasionally nocturnal, and responsive to nonsteroidal anti-inflammatory drugs. The patient was afebrile. Physical examination revealed a tender, nonfluctuating swelling of the left distal tibia, without flare or erythema; the range of motion was painfully limited. Inflammatory markers and complete blood count were normal. Tuberculin skin test resulted negative. Plain radiographs showed a longitudinal lytic lesion extending across the growth plate of the left distal tibial metaphysis, highly suggestive of Brodie abscess (**Figure**). Magnetic resonance images confirmed the finding. The patient underwent surgical curettage and received 10 days of intravenous oxacillin plus clindamycin followed by a 3-week course of oral amoxicillin-clavulanate. Methicillin-sensitive *Staphylococcus aureus* was isolated from the cultures. Histology confirmed the diagnosis of chronic osteomyelitis.

Brodie abscess is a form of chronic pyogenic osteomyelitis consisting of a central suppuration area encapsulated by sclerotic tissue.[1,2] The most affected sites are the metaphysis of long bones, commonly the tibia and femur. In adolescents, a history of minor trauma without a fracture or open wound is typical. Brodie abscess is an insidious clinical diagnosis; it may present with localized tenderness, recurrent pain, or swelling of the affected site. Because the infection is well-circumscribed, inflammatory markers may be normal and systemic symptoms are usually lacking.[1-3] Instead, the radiologic appearance of Brodie abscess is so characteristic that diagnosis can be straightforward, ruling out other focal conditions.[4,5] Plain radiographs typically show an area of bone destruction with regular margins and sinuous shape surrounded by sclerosis; in contrast, bone tumours rarely present with sinuous margins. Moreover, growth plate involvement secondary to abscess casting is highly suggestive of Brodie abscess, making the other diagnosis unlikely.[1,3,6] Surgical debridement is needed to eradicate chronic osteomyelitis, allowing drainage cultures and histologic examination. Empiric antibiotic treatment should be targeted against *S. aureus*, the most common pathogen found in Brodie abscess.[1] ■

Figure. Lateral view of plain radiograph showing a longitudinal lytic lesion with a rim of reactive sclerosis and well-defined borders in the left distal tibia.

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A Real-time Cerebral Bleeding in an Extremely Preterm Newborn

A neonate was born at $26^{6/7}$ weeks of gestation in a second-level center by an emergency caesarean delivery owing to placental abruption. The newborn weighed 920 g and had an Apgar score of 2-6-7. She was intubated rapidly and an umbilical venous catheter was placed. Immediately after administering an endotracheal dose of surfactant, the newborn suffered a cardiac arrest, not responding to adequate ventilation and requiring chest compressions and adrenaline to reach return of spontaneous circulation. At 2 hours of life, she was transported to our third-level neonatal intensive care unit with a severe metabolic acidosis (pH 6.96, bicarbonates 6 mmol/L) and hypotension, needing multiple fluid boluses to reach an adequate mean arterial pressure during transport.

Upon arrival, a double inotropic therapy with dopamine and dobutamine was begun, as well as a supplementation with sodium bicarbonate and sedation with fentanyl. Cerebral ultrasound at admission (as well as at 24 hours of life) showed no intraventricular hemorrhage (IVH), only collapsed lateral ventricles. The clinical conditions of the newborn remained stable although critical (requiring subsequent administrations of bicarbonates and frequent

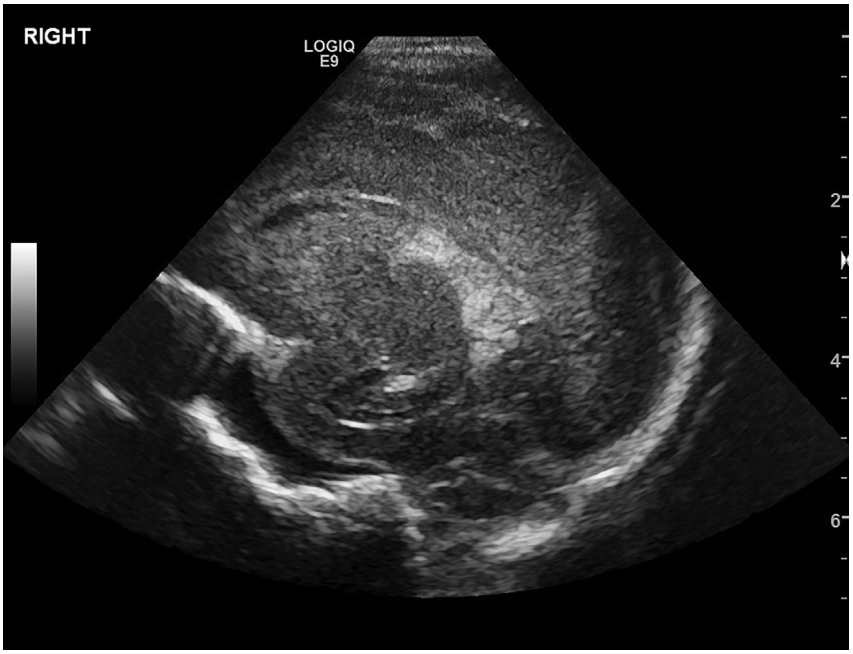

Figure 1. Sagittal view: blood occupying less than one-half of the right ventricular area at first ultrasound investigation, with no chamber dilatation.

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