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Monoarthritis and Microhematomas in a 4-year-old Boy

Chelsea DeCoste, MD, FRCP(C), Shirley M.L. Tse, MD, FRCP(C), Division of Rheumatology, Hospital for Sick Children, Toronto, Ontario, Canada. Address correspondence to Dr. C. DeCoste, IWK Health Centre, Division of Rheumatology, Department of Pediatrics, 5850/5980 University Avenue, Room K2755, PO Box 9700, Halifax, NS B3K 6R8, Canada. Email: chelsea.decoste@iwk.nshealth.ca. The authors declare no conflicts of interest relevant to this article. A waiver of ethics approval was granted as per institutional policy. Written consent to publish this case was obtained from the patient's family.

Monoarthritis warrants a broad differential diagnosis including trauma, infection, malignancy, and hemarthrosis.[1] Most children with hemophilia are diagnosed before age 2 years, with hemarthrosis typically occurring 1–2 years after bleeding into the soft tissues, skin, and mucosa.[2]

A 4-year-old Egyptian boy presented with 2 years of right ankle pain and swelling lasting 3–5 days, as well as hard, tender skin lesions on his extremities every few months. Investigations in Egypt, including bloodwork for familial Mediterranean fever, were normal. Physical examination revealed right ankle arthritis, numerous hyperpigmented areas overlying his anterior tibiae and fibulae, and a single firm microhematoma on his left forearm (Figure 1). His complete blood count, inflammatory markers, creatinine, electrolytes, and transaminases were normal. Right ankle radiographs showed irregular contour of the talus, subcortical lucencies, and a tibiotalar effusion (Figure 2). Coagulation studies were obtained prior to a skin biopsy and revealed a prolonged prothrombin time of 66 seconds with full 1:1 mixing study correction. His factor VIII level was undetectable, confirming the diagnosis of severe hemophilia A. The patient's radiologic findings likely reflect longstanding arthropathy due to repetitive joint bleeding. His hyperpigmented lesions were felt to be resolving microhematomas due to repetitive skin bleeding and have not recurred following factor replacement therapy.

Though most children with severe hemophilia present as toddlers, some will not show symptoms until preschool age.[2] Subcutaneous hemorrhagic nodules are a rare dermatologic manifestation[3,4] and can mimic conditions such as erythema nodosum and vasculitis, especially when arthritis is present.

Figure 1. Nodular nonblanchable lesion located on the left arm.

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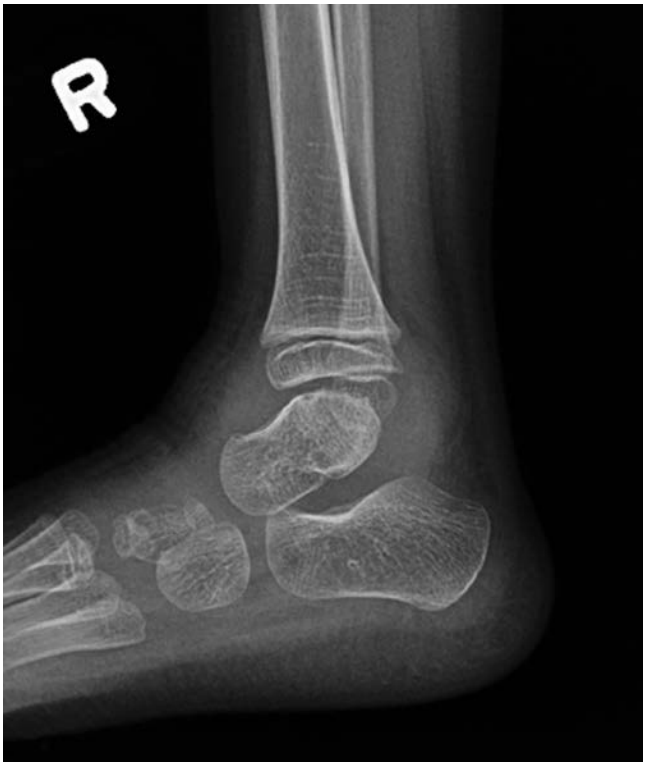

Figure 2. Right ankle radiograph showing irregular contour of the talus with subcortical lucency and tibiotalar effusion, in keeping with hemophilic arthropathy.

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