Blount's disease in a pair of identical twins

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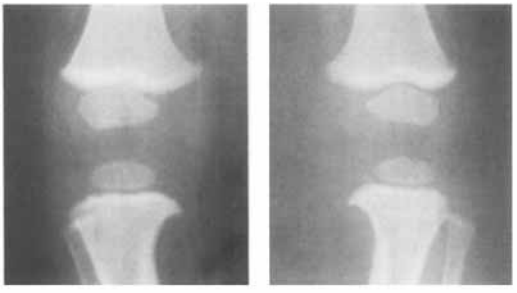
Case reports

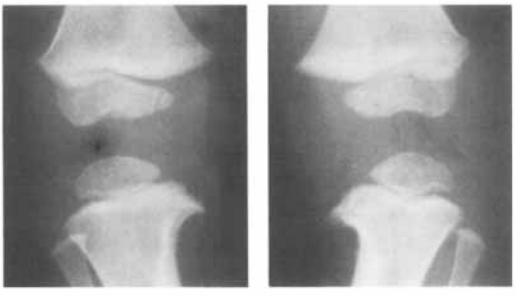
Twin boys presented at the age of 1 year and 4 months with bilateral bowlegs. The deformities had become apparent when they began to walk at 13 months of age. The family history was negative. The twins had two normal elder brothers. Their monozygosity was confirmed by DNA analysis using a minisatellite gene probe (Jeffreys et al. 1985).

On examination, both boys had marked bilateral genu varum and medial tibial torsion of the same severity. No other clinical abnormality was found. Initial radiographs showed (Figure 1) mild beaking of the medial side of the proximal metaphysis of both tibiae. A skeletal survey revealed no other abnormality. Laboratory studies yielded normal results.

The deformities were becoming progressively more severe, with beaklike projections with translucent areas and irregularities of the medial side of the epiphyses in both twins (Figure 1). Both boys underwent corrective osteotomies at the age of 2 years and 6 months, and they had uneventful recoveries. No recurrence of the deformities was observed 4 years after surgery.



Aged 1 year and 4 months.



Aged 2 years and 6 months.

Figure 1. Blount's disease in one of a pair of identical twins.

Discussion

The etiology and pathogenesis of Blount's disease remain unclear. Sibert and Bray (1977) reported a family in which bowlegs were present in three generations, and proposed probable autosomal dominant inheritance with variable penetrance. Sevastikoglou and Eriksson (1967) reported 4 cases in a family with Blount's disease including probable identical twins, although the monozygosity was not confirmed.

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