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SO-CALLED RECURRENT PERTHES' DISEASE

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Two cases of "recurrent" Perthes' disease are presented and the diagnosis discussed. It is concluded that the first episode of hip involvement occurring at an early age was dysplasia epiphysealis capitis femoris.

Key words: Perthes' disease; femoral capital epiphysis; epiphyseal dysplasia

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Very few cases of recurrent Perthes' disease have been reported in the literature (Caffey 1945, Kemp & Colmeley 1971, Katz 1973). In addition two separate episodes of avascular necrosis of the same femoral capital epiphysis have been reported in Gaucher's disease (Katz 1967). We have treated two cases for what we believed to be recurrent Perthes' disease and the purpose of the present paper is to discuss this diagnosis.

CASE REPORTS

Case 1: (Figure 1 a–d). A boy at the age of three years developed a left-sided limp. The first X-rays of the hip in May 1963 were normal. The limp persisted, and new X-rays 4 months later (1 a) showed an irregular ossification centre of the femoral capital epiphysis interpreted as Perthes' disease at an early stage. On examination a slight limitation in abduction and rotation of the left hip was found. He was treated initially with a plaster abduction brace and had a total non-weightbearing period of 22 months. X-rays 14 months after the start of treatment (1 b) showed an irregular and flattened ossification centre. In May 1970 X-rays (1 c) were normal except for some flattening of the capital epiphysis. Two years later, at 12 years, he again began to limp and complained of pain in the left hip. Examination disclosed marked reduction in the movements of the left hip. Movements were painful and pronounced muscular atrophy of the leg was found. X-rays (1 d) showed sclerosis, fragmentation, and flattening of the capital epiphysis characteristic of Perthes' disease.

Case 2: (Figure 2 a–d). A boy aged two and a half years in November 1968 developed a limp on the right side. X-rays 3 months later (2 a) showed an irregular ossification centre of the right femoral capital epiphysis but no sclerosis or fragmentation. Our diagnosis was Perthes' disease at an early stage. He was treated with a plaster abduction brace for 7 months and had a total non-weightbearing period of 13 months. The radiographic picture improved (2 b), and 4 years after the onset of symptoms the X-rays were normal (2 c). Two years later, 8 years old, he began limping again and complaining of pains in the right hip. On clinical examination all movements of the right hip were limited. X-rays taken 1 month after the onset of symptoms were normal, but X-rays 4 months later (3 d) showed marked involvement of the capital epiphysis characteristic of Perthes' disease.

DISCUSSION

Two cases of "recurrent" Perthes' disease are presented. Both were boys and had their first episode of hip involvement be-

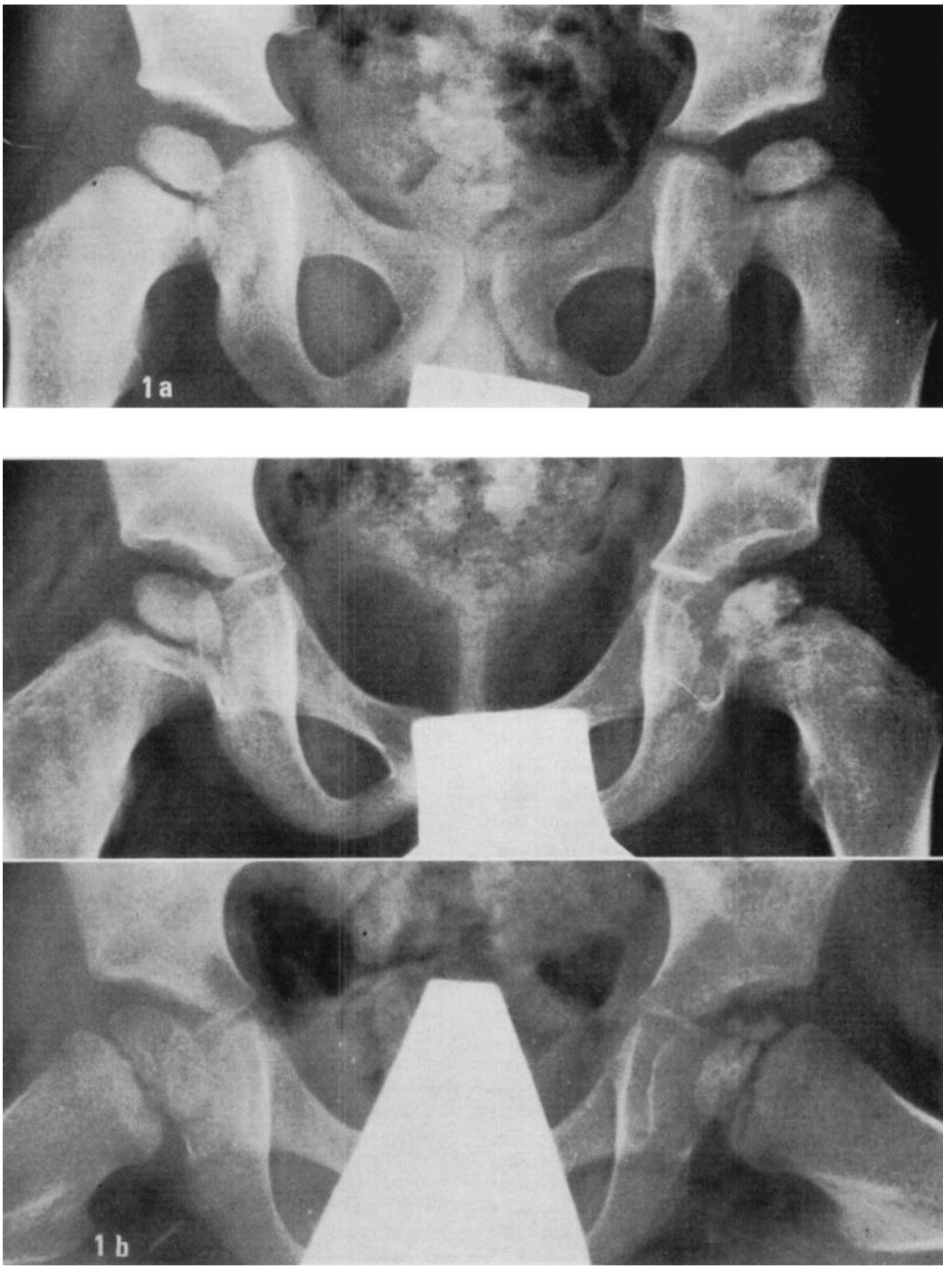
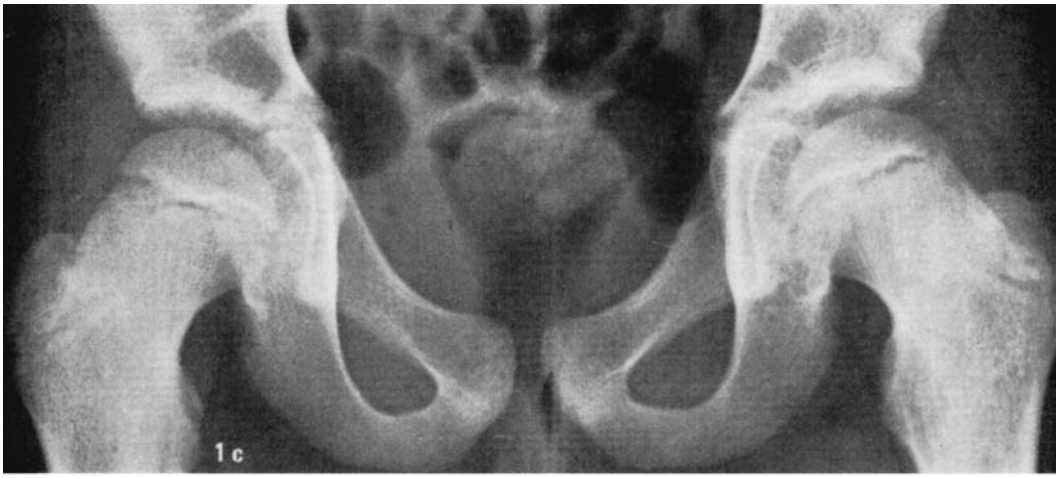
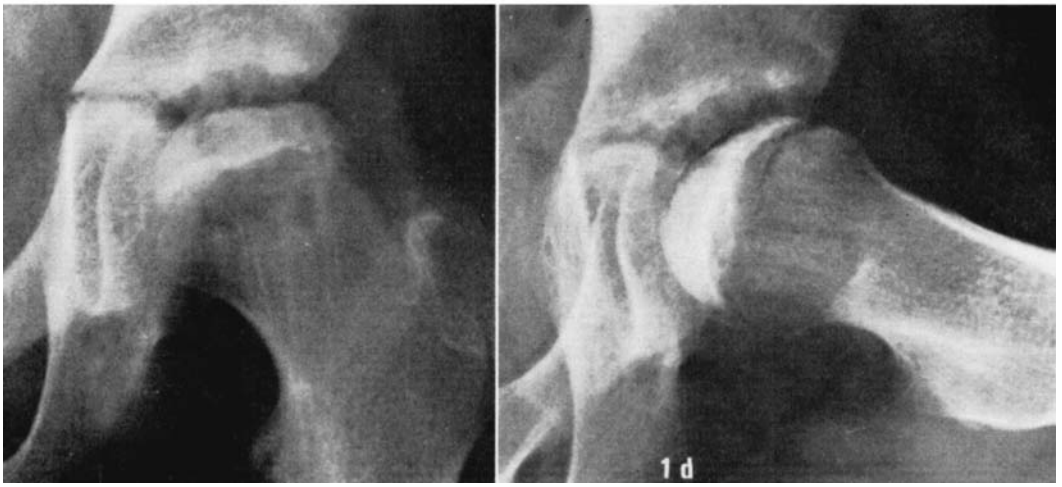


Figure 1. "Recurrent" Perthes' disease in a boy born 1960. The first episode of hip involvement on the left side at 3 and 4 years of age, respectively (a and b). Normal left hip, except for some flattening of the capital epiphysis, at 10 years (c). Typical Perthes' disease in the left hip at 12 years (d).

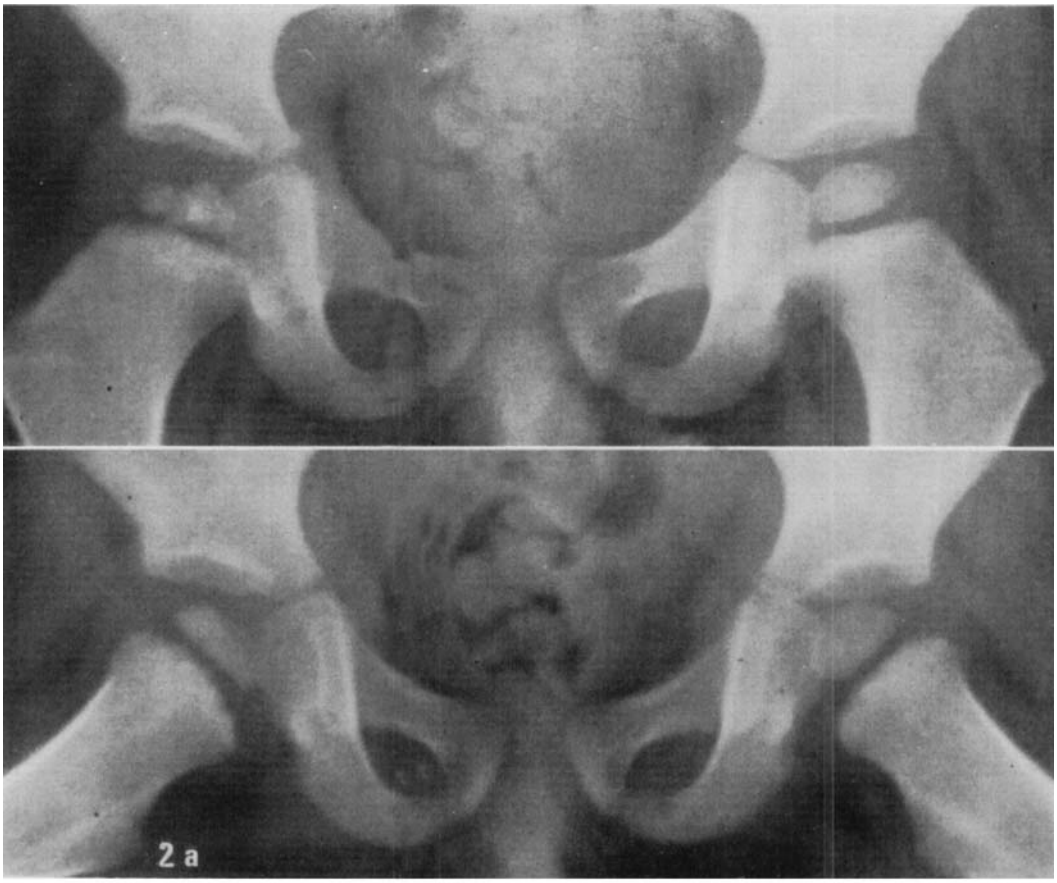




tween 2 and 3 years of age. A limp was the main symptom in both cases, and on clinical examination some limitation of movement of the affected hip was found. X-rays in both cases showed irregular ossification of the capital femoral epiphysis, a granular bone structure, but *no sclerosis or fragmentation.* The second episode, occurring 9 and 5 years, respectively, after the first one, was characterized by more severe symptoms. Clinical examination revealed marked reduction of movement in the affected hip, and X-rays showed the typical picture of Perthes' disease.

When comparing the present two cases with the four cases described previously (Caffey 1945, Kemp & Colmeley 1971, Katz 1973) a similarity is found in that all were boys and all had a mild attack at an early age with an epiphyseal involvement without obvious sclerosis or fragmentation. The second episode was in all cases typical of Perthes' disease.

It thus seems clear that the two separate episodes were different as regards symptoms and radiographic findings, and may well be two different entities. Meyer (1964) among 300 cases of Perthes' disease found 30 cases of dys-



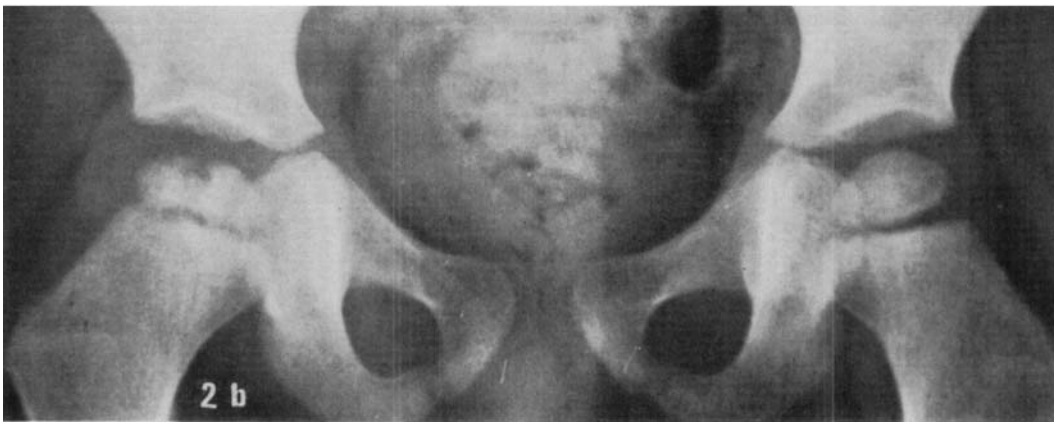
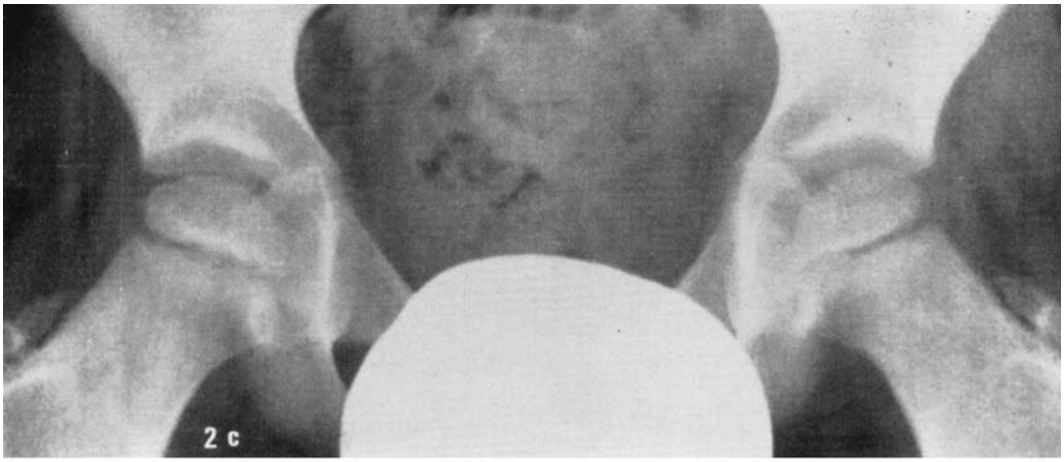
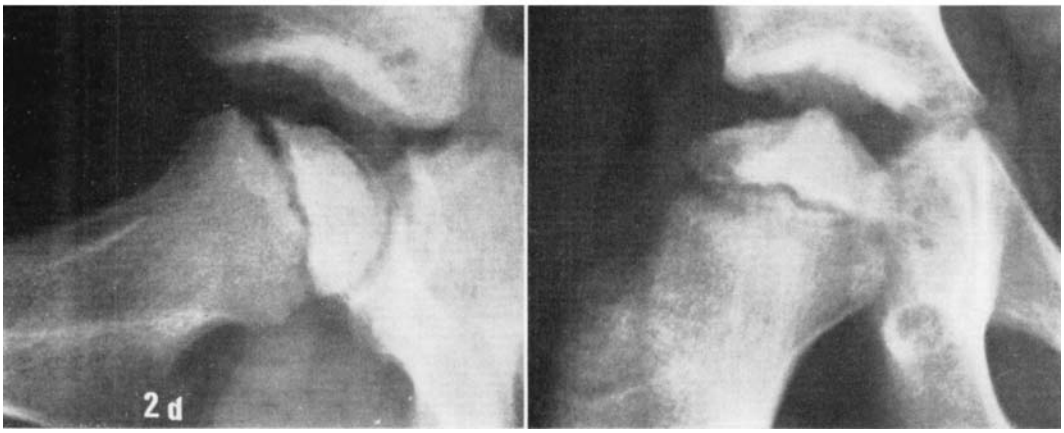


Figure 2. "Recurrent" Perthes' disease in a boy born 1966. The first episode of hip involvement on the right side at 3 and 4 years of age, respectively (a and b). Normal hips at age 7 (c), typical Perthes' disease in right hip at 8 years of age (d).





plasia epiphysealis capitis femoris, six of which were combined with typical Perthes' disease. He was of the opinion that dysplasia epiphysealis may predispose to subsequent Perthes' disease or there may be a common state of susceptibility to the two conditions. In our opinion the first episode in our cases and may be also in the other cases reported earlier as recurrent Perthes' disease may have been dysplasia epiphysealis capitis femoris. In this condition the radiograms show a diffuse, granular structure but no sclerosis or fragmentation.

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