SHORT REPORT

Hypocalcaemic fit in an adolescent boy with undiagnosed rickets

I Seerat, M Greenberg

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Rickets in early childhood has been well documented in the literature. We present a case report on a teenage Somali boy who had a generalised tonic clonic fit (an unusual presentation of rickets in late childhood) and was diagnosed with vitamin D deficient rickets.

A 15-year-old Somali boy presented to our emergency department having had a 5 min generalised tonic clonic fit at school. He reported seeing a white patch in his temporal field of vision and then he felt dizzy, collapsed and started fitting.

There was no history of fever, vomiting or diarrhoea. His clinical examination was normal. His blood results showed a corrected calcium of 1.51 mmol/l with phosphate of 1.29 mmol/l and alkaline phosphate (ALP) of 751 units. He had a normal diet. There were no symptoms, signs, or laboratory evidence of malabsorption, hepatic or renal disease. His vitamin D and parathyroid hormone values were 14.4 nmol/l (normal range 19–106 nmol/l) and 53.3 pmol/l (normal range 1.6–6.9 pmol/l), respectively. He was diagnosed with vitamin D deficient rickets. His right wrist x ray showed sclerotic and widened end plates of the radius and ulna. These appearances are consistent with previous healed rickets as shown in fig 1. His ECG and EEG were normal. He was started on oral vitamin D and calcium supplement (Calcichew, one tablet twice daily). After 3 months his calcium (2.24 mmol/l), phosphate (1.73 mmol/l), ALP (328 units), vitamin D (27.5 nmol/l) and parathyroid hormone values (6.1 pmol/l) had returned to normal. The repeat x ray showed normal bony appearances (fig 2).

DISCUSSION

There are many cases which have been reported in the literature regarding rickets in early childhood, as it is more common in this age group. The most common presentations are bony deformities such as bow legs and fractures, stridor¹ or fits² due to hypocalcaemia. There are some case reports about adolescent patients who were diagnosed with vitamin D deficiency rickets, and they are usually asymptomatic³ or present initially with bone pains,⁴ musculoskeletal pain, muscle weakness and hypocalcaemic tetany.

It is important to recognise that rickets can present not only in early childhood but also in late childhood with various clinical manifestations. Rickets may present atypically in adolescence with seizures. Screening of at risk immigrant families should be implemented through public health policies and paediatricians should be aware that rickets is not just a disease of early childhood.

CONCLUSION

Nutritional rickets is re-emerging in Western societies, particularly in young children and in adolescents of African or Asian descent. Hypocalcaemic fits resulting from vitamin D deficiency are rare in adolescents. It is likely that low dietary calcium led

Figure 1 Right wrist before treatment.

Figure 2 Right wrist after treatment.

to rickets in the patient described here. This responds well to treatment with oral vitamin D.

Authors' affiliations

I Seerat, M Greenberg, Royal Free Hospital, London, UK

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Correspondence to: Dr I Seerat, Royal Free Hospital, Pond Street, London, NW3 2QG, UK; iseerat@hotmail.com

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IMAGES IN EMERGENCY MEDICINE

Omental infarction: a rare cause of acute abdominal pain

Snehal Lapsia, Sangeet Ghai

A 38-year-old man presented to our emergency department with an acute history of abdominal pain. Physical examination elicited tenderness in the right upper quadrant. The only significant laboratory value was a raised C-reactive protein of 95 mg/l. The provisional diagnosis was of acute cholecystitis but the ultrasound scan that followed was normal. He remained symptomatic and subsequent computed tomography (fig 1) revealed ill defined stranding of the right sided omentum together with mild reactive bowel wall thickening, resulting in the diagnosis of omental infarction. The patient was treated conservatively and made a full and speedy recovery.

Omental infarction is caused by a compromise to the blood supply by

either torsion or spontaneous venous thrombosis.¹ Clinically it is often indistinguishable from acute cholecystitis and appendicitis. Its importance lies in the fact that if correctly diagnosed patients can avoid surgery and be reassured about the benign and self limiting nature of the disease.

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Authors' affiliations

S Lapsia, S Ghai, Department of Radiology, City General Hospital, University Hospital of North Staffordshire, Newcastle-under-Lyme, UK

Correspondence to: Dr Sangeet Ghai, Department of Radiology, City General Hospital, University Hospital of North Staffordshire,

Figure 1 Omental infarct on the right side of the abdomen as indicated by the arrow in a 38-year-old man. Informed written consent was obtained for the publication of this figure.

Newcastle-under-Lyme, ST4 6QG, UK;
sangeet_ghai@yahoo.com

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