PHOTO QUIZ

Dripping candle wax

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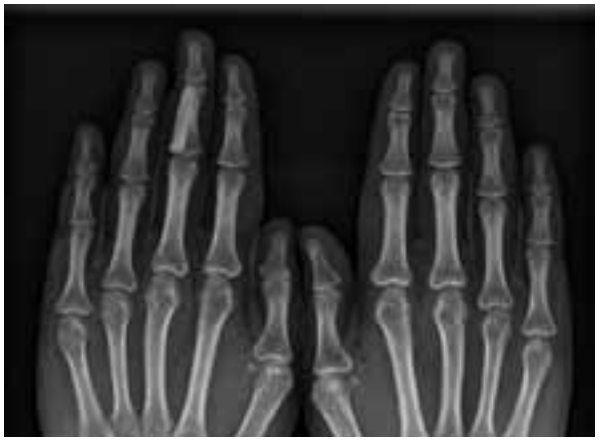
CASE REPORT

A 23-year-old woman presented with painful hands. There were no complaints of morning stiffness, night pain or swollen joints. Physical examination showed no signs of arthritis, no nail or skin lesions. Laboratory findings were normal: erythrocyte sedimentation rate 10 mm/h, C-reactive protein 8 mg/l, leucocytes 13.8 x 10^9/l, calcium 2.25 mmol/l, and alkaline phosphatase 104 U/l. The immune serology (antinuclear antibodies (ANA), anti-citrullinated protein antibodies (ACPA) and rheumatoid factor IgM) was negative. Plain radiography of the hands showed the following picture *(figure 1)*.

Figure 1. *The middle phalanx of the third finger of the left hand shows a typical picture of melorheostosis*



WHAT IS YOUR DIAGNOSIS ?

See page 143 for the answer to the photo quiz.

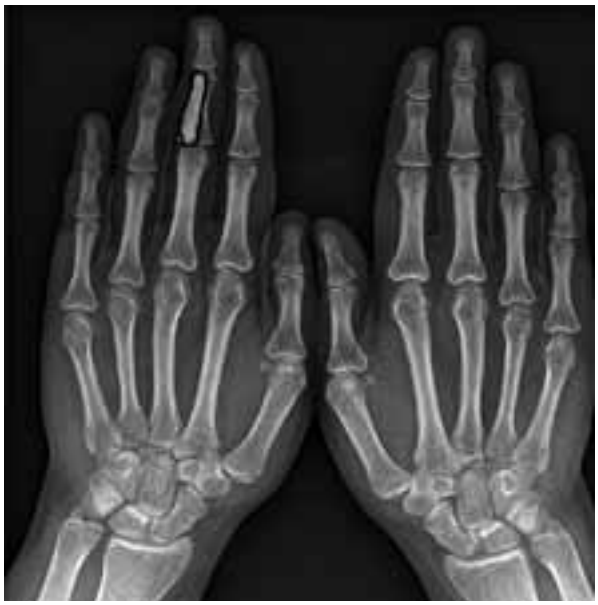
ANSWER TO PHOTO QUIZ (PAGE 140)

DRIPPING CANDLE WAX

The X-ray shows a very typical example of melorheostosis. The etymology of the word originates from the Greek 'melo' which means limb, ' rheos' which means flow and 'osteon' which means bone. It refers to the radiological aspect of a dripping candle wax. Melorheostosis is a rare disorder of bone development and belongs to the sclerotic bone dysplasia disorders. The cause is probably a loss-of-function mutation in LEMD3 gene, a protein involved in the development of intramembranous and endochondral bone.[1] It generally becomes manifest after early childhood, most cases being apparent by the age of 20 years. Mostly, it involves one limb but a single bone or multiple different bones may be affected. The symptoms vary from asymptomatic to pain, stiffness and limited range of motion. Most cases are benign, but a chronic course with progression of symptoms is also possible. The radiographic abnormalities of melorheostosis are sufficiently characteristic to allow accurate diagnosis in most cases.[2] Differential diagnosis comprises osteosarcoma in localised forms, myositis ossificans or calcified haematoma in cases associated with soft tissue calcifications. Treatment is generally symptomatic, but surgery might be needed in case of severe deformity or contractures.

It is not clear whether this coincidental finding in our patient is the cause of her pain. We treated her with painkillers (paracetamol) with good results.

Figure 1.



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1. Azouz EM, Greenspan A. Melorheostosis; Orphanet. http://www.orpha.net/data/patho/GB/uk-Melorheostosis.pdf.
2. Resnick D. Diagnosis of Bone and Joints Disorders. 3rd Edition. W.B. Saunders Company. Section XVIII, Muskuloskeletal disease. 1995;4410-4.