



ENDGAMES

SPOT DIAGNOSIS

Hip pain in a middle aged woman

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A 52 year old woman with a history of breast cancer has pain in her right hip after a minor fall. What does the radiograph of her right hip (fig 1) show?



Fig 1 Radiograph of the right hip

Answer

The radiograph shows a pathological avulsion fracture of the lesser trochanter (fig 2). There is proximal femoral lucency, which represents an underlying bone metastasis.

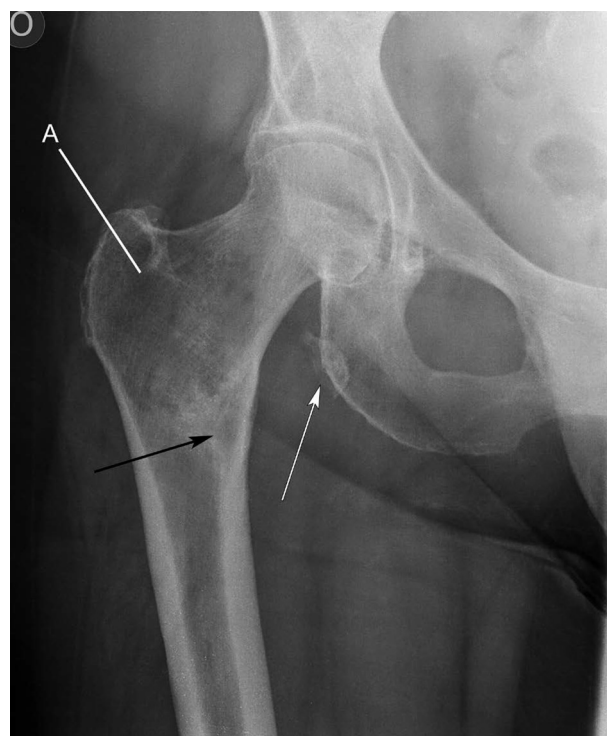


Fig 2 Radiograph of the right hip. White arrow: avulsed lesser trochanter. Black arrow: site of avulsion. Line A: ill defined lucent lesion in proximal femur

Discussion

Isolated avulsion fractures of the lesser trochanter are thought to be rare in adults.¹⁻³ Actual prevalence is uncertain, but fewer than 40 cases have been described in case series.² Given the unusual fracture location in the absence of major trauma, a pathological fracture should be considered. The radiograph should be studied closely for any evidence of underlying disease.

In adults, avulsion fractures of the lesser trochanter have a well documented association with underlying tumour infiltration.

Some authors consider these fractures to be pathognomic for tumour infiltration when isolated in the absence of major trauma.¹⁻³ Metastasis accounts for 60-70% of the reported underlying tumours that cause these fractures, with haematological or primary bone malignancy accounting for the remainder.² In children and adolescents, however, these fractures should not be considered pathological. In this younger age group, isolated fractures of the lesser trochanter are reported to occur as a result of forceful iliopsoas contraction during athletic activity.³⁻⁵

Learning points

Unusual fracture patterns, such as isolated avulsion of the lesser trochanter in an adult, should raise clinical suspicion for pathological fractures, particularly in the absence of major trauma.

Careful review of radiographs that show fractures may confirm whether a fracture is pathological.

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Patient consent obtained.

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