



Occult Hip Fracture in the Elderly

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Clinical Image

A 78-year-old man was admitted to the hospital on 28th May, 2017 due to "Diabetes for more than 5 years and dizziness for half a year". Abdominal and pelvic MRI enhancement revealed an old fracture of the right femoral neck with avascular necrosis of the femoral head and a small amount of fluid in the right hip joint (Figure 1A and B, white arrow). Inquired about previous relevant examination: The patient took X-ray on 21st Feb, 2016 because of "right hip pain without obvious inducement", and the radiology report indicated degeneration of pelvis and double hip joint. Although there is no obvious sign of non displaced fracture in the right femoral neck, careful observation will reveal some indirect signs, such as a slight disorder of the trabecular bone and a slight increase in local bone density in the femoral neck (Figure 1C, black arrow). Hip fractures are an increasing problem in the elderly and need to be managed carefully [1]. In this case, the patient with occult hip fracture failed to be identified and treated in time, one year later, avascular necrosis of the right femoral head was caused by continuous weight loading, and finally the right hip arthroplasty was carried out. Rethinking this case, because the occult hip fracture is a false-negative fracture, conventional X-ray examination may find little evidence about it, doctors should pay more attention about the elderly patients with no obvious cause of hip pain, especially when the symptoms and signs do not match the X-ray findings, a timely further MRI examination is necessary [2,3]. Both the clinicians and the radiologists should not just consider a specialist diagnosis or satisfied with a single diagnosis.

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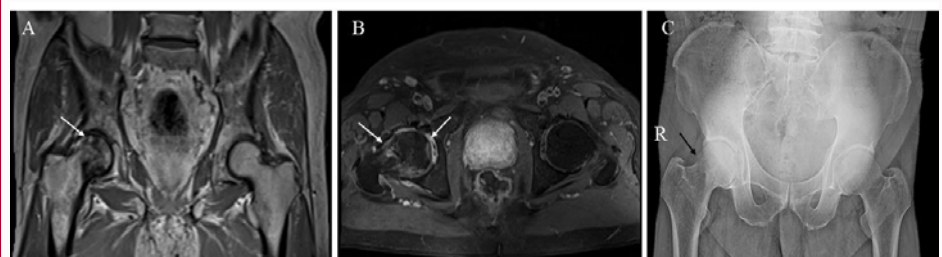
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Figures 1: A) Abdominal and pelvic MRI enhancement revealed an old fracture of the right femoral neck. B) Avascular necrosis of the femoral head and a small amount of fluid in the right hip joint. C) Slight disorder of the trabecular bone and a slight increase in local bone density in the femoral neck.

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