

PERIPROSTHETIC ATYPICAL FEMORAL FRACTURES: TIME TO REVISE THE ASBMR DIAGNOSTIC CRITERIA?

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Introduction: Periprosthetic atypical femur fracture (PAFF) has been increasingly reported in the literature however it remains excluded from the diagnostic criteria of atypical femur fracture (AFF) by The American Society for Bone and Mineral Research (ASBMR). Here, we describe a case of periprosthetic fracture with striking characteristics of AFF.

Discussion: A 73-year-old female presented with a Vancouver type B1 periprosthetic fracture after making a sudden twist on her right lower limb. Further history revealed she had prodromal thigh pain for several weeks and has been on bisphosphonate therapy for the past 13 years. Radiographs showed typical features of AFF with presence of medial spike, localized lateral cortical thickening and simple non comminuted fracture pattern. Her bisphosphonates were withheld, and she subsequently underwent open reduction and fixation with a long locking compression plate. Postoperative recovery was uneventful, and patient was discharged well. Based on the minor trauma and radiographic findings as per the ASBMR criteria, we diagnosed this case as a PAFF. The recognition of AFF in periprosthetic fractures is important as it has several implications on treatment. Firstly, bisphosphonates should be stopped in these patients as opposed to treating a fragility fracture. Secondly, when compared to typical periprosthetic fractures, they are shown to have delayed healing times, higher mortality and complication rates after osteosynthesis. Also, AFF tends to be bilateral, thus, screening of the contralateral femur is paramount and prophylactic fixation should be considered if typical features are present which fortunately was not in this case.

Conclusion: PAFFs do exist and its recognition is paramount to implement appropriate treatment strategies.