Author's response to reviews

Title: A case of osteosarcoma in the distal femur two years after an ipsilateral femoral shaft fracture. Coincidence? A case report

Authors:

Oscar Dorrestijn (o.dorrestijn@orth.umcg.nl)
Paul C Jutte (p.c.jutte@orth.umcg.nl)

Version: 3 Date: 18 October 2010

Author's response to reviews: see over
Dear editor and reviewers,

Thank you for your comments regarding our case report. Below our response to the comments and the changes we have made.

Best regards, Oscar Dorrestijn & Paul Jutte.

Reviewer’s report

Title: A case of osteosarcoma in the distal femur two years after an ipsilateral femoral shaft fracture. Coincidence? A case report
Version: 2 Date: 26 May 2010
Reviewer: Bernd P Teunissen
Which of the following following best describes what type of case report this is?: Unexpected or unusual presentations of a disease
Has the case been reported coherently?: Yes
Is the case report authentic?: Yes
Is the case report ethical?: Yes
Is there any missing information that you think must be added before publication?: Yes
Is this case worth reporting?: Yes
Is the case report persuasive?: Yes
Does the case report have explanatory value?: Yes
Does the case report have diagnostic value?: No
Will the case report make a difference to clinical practice?: No
Is the anonymity of the patient protected?: Yes

Comments to authors:
In the introduction of the abstract it is stated that radiography did not contribute to the diagnosis. However, in paragraph two of the case presentation the author writes that the first moment of suspicion for malignancy arose, was because of osteolytic lesions shown on the radiographs. This should be corrected.

You are right. That part of the sentence has been removed.

The author writes in this same paragraph two of the case presentation that a biopsy was performed. However, the area in which the biopsy was performed is not described. Were all hot spots histopathologically examined or was the diagnosis made on one biopsy and radiographic/bone scintigraphic findings combined? Is malignancy around the fracture proven by histopathology? This should be specified.

We have changed the text as follows:
“A Jamshidi needle biopsy was performed from the most suspicious region at the medial femoral condyle. No biopsy was performed at the fracture site. The
histopathology showed an undifferentiated lytic lesion, which matches pleomorphic osteosarcoma.”

In paragraph five of the discussion it is stated that “one might question if the presence of the femoral shaft fracture and the osteosarcoma in the same femur is coincidental. Several facts might speak against this”. This is followed by two arguments that speak for this statement. This paragraph is confusing and therefore needs to be adjusted.

You are right. We have changed the discussion. The arguments that speak for and against coincidence are now discussed separately.

In paragraph one of the conclusion the trauma mechanism is described as “absolutely inadequate”. The term absolutely is exaggareted and needs to be omitted, because in (daily) practice fractures sometimes occure due to minor forces.

We have changed this into “unlikely”.

Quality of written English: Acceptable
Declaration of competing interests: I declare that I have no competing interests
Reviewer's report
Title: A case of osteosarcoma in the distal femur two years after an ipsilateral femoral shaft fracture. Coincidence? A case report
Version: 2 Date: 12 August 2010
Reviewer: Verity A. Currall
Which of the following following best describes what type of case report this is?: Unexpected or unusual presentations of a disease
Has the case been reported coherently?: Yes
Is the case report authentic?: Yes
Is the case report ethical?: Yes
Is there any missing information that you think must be added before publication?: Yes
Is this case worth reporting?: Yes
Is the case report persuasive?: Yes
Does the case report have explanatory value?: Yes
Does the case report have diagnostic value?: Yes
Will the case report make a difference to clinical practice?: Yes
Is the anonymity of the patient protected?: Yes

Comments to authors:
General Comments
I think this case report does have a message, but it needs to be more clearly argued in the discussion and then confirmed in the conclusion.

Revisions Necessary Before Publication
1. Radiography did contribute to the diagnosis, when the patient presented with the pathological fracture. Please remove the sentence from the abstract saying it did not.

You are right. We have removed that part of the sentence.

2. Which company manufactured the unreamed femoral nail?

“Synthes.” It has been added in the manuscript.

3. It is stated that the diagnosis was confirmed by biopsy – was this from the distal femur alone, or from the fracture site in the midshaft also? The exact histology may have some bearing on the link between the two lesions, as skip lesions tend to be less differentiated than the primary tumour.

We have changed the text in the case description as follows:
“A Jamshidi needle biopsy was performed from the most suspicious region at the medial femoral condyle. No biopsy was performed at the fracture site. The histopathology showed an undifferentiated lytic lesion, which matches pleomorphic osteosarcoma.”

In the discussion we have added the following text:
“From skip metastases it is known that they tend to be less differentiated than the primary tumor (Enneking, 1975, p. 2192). In our case the histology of the distal femur biopsy showed an undifferentiated lesion. This finding supports our hypothesis that the lesion in the distal femur would be the skip lesion.”

4. The discussion is, in general, fairly disorganised and, at times, argues against itself. This needs to be addressed. For example:
“When the diagnosis of osteosarcoma was made, our patient had two lesions in the same bone. What is the connection between them – which lesion is the primary?
Evidence for the fracture site lesion being the primary...
Evidence for the distal lesion being the primary…”

Thank you for the good suggestion. We have changed the discussion completely.

5. In the conclusion: “This trauma mechanism is absolutely inadequate for the femoral shaft fracture presented, therefore we think a primary tumor existed at the site of the fracture”. Where is the evidence for this in the Discussion? I suggest Ramisetty et al (2005) Injury 36(5):622-6) as a starting point.

Thank you for the suggestion. However, Ramisetty et al. published an article presenting the risk of serious pathology in suspected pathological fractures of the femoral neck. The load patterns and biomechanics in the femoral neck are quite different from those in the femoral shaft, therefore we think this article is not suitable for our case report. Such articles are not available for femoral shaft fractures.

6. You need to go into more detail for the possible mechanism of connection between the two lesions. For example:
• skip lesions are more commonly proximal to the primary
• even with an unreamed nail, it is possible that the primary site was the distal femur and the tumour was spread proximally by the surgery
• surgery and trauma may have a part to play in the spread of cancer (see Currall and Dixon (2008) Synovial Metastasis: An Unusual Cause of Pain After Total Knee Arthroplasty. J Arthroplasty 23(4) 631-6)

Thanks for the suggestions. We have added them to our discussion.

Quality of written English: Needs some language corrections before being published.

Our manuscript has been corrected by a native English speaker who is experienced editing texts with medical terminology.