Author's response to reviews

Title: A case of patellar fractures in monozygotic twin gymnasts.

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Author's response to reviews: see over
Dear Editor/Editorial panel,

This case report is resubmitted with revisions for peer review. Changes are tracked and a breakdown of the responses to reviewer comments is detailed below.

Kind regards,
Yours faithfully,
Andrew J Beamish, MB BCh, MRCS(Eng)

Response to reviewer comments.

Editor – Title changed in response to your suggestion: “A case of patellar fractures in monozygotic twin gymnasts.”

Reviewer number 1.

1. Statements regarding the exclusion of alternative diagnoses revised:

“It is difficult to reliably assess the type of fractures sustained.... Chronic stress fracture of the patella is a recognised injury, usually preceded by a painful syndrome. No history of anterior knee pain in the months prior to the acute injury was given in these cases. Stress fracture without preceding pain has, however, been reported previously and this diagnosis therefore remains a possibility.”

“The bipartite patella, whilst usually asymptomatic, is a well documented cause of anterior knee pain.... Without the benefit of pre-morbid radiography, we are unable to exclude this diagnosis.”

2. Evidence of genetic influence on bone mineral density and susceptibility to fracture now explored in discussion.


Reviewer number 2.

1. The diagnosis is now described as “difficult to reliably assess”. It remains a possibility that this was union of bipartite patella

2. No skeletal disorder was demonstrated.

3. No laboratory abnormality was demonstrated.

4. This type of fracture is rare in the general population and in athletes[i,ii,iii].
Reviewer number 3.

1. The clinical relevance of this report is the need for research to determine the precise genetic factors influencing susceptibility to fracture. The authors are of the opinion that genetic factors placed the subjects of this case at increased risk of fracture.
2. Genetic factors related to bone mineral density have now been explored in the discussion.
3. The MRI images demonstrating acute fracture have been obtained and are included as Figures 2 and 3. It has neither been determined whether the fracture was a stress injury, nor whether bipartite patella was present pre-injury. Therefore, the remaining doubt over final diagnosis has also been stated – as suggested by bone sclerotic change that you mentioned in relation to Figure 1.

References:

i. “Stress fracture of the patella is one of the least common reasons for anterior knee pain.”

ii. “Although stress fractures frequently occur in the lower extremity, they rarely affect the patella.”

iii. Not included as a common sporting injury in: