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4 **Reliability of the pronator quadratus fat pad sign to predict the severity of distal radius**
5 **fractures**

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8 Dear Editor and Reviewers,

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10 We would like to thank you for the useful comments and suggestions. We have tried to implement
11 these throughout the revised manuscript and hope that it will now be considered for publication in
12 the World Journal of Radiology.

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15 Reviewer 1:

16 This study evaluated the correlation of the PQC thickness in CR and CT in 89 consecutive patients
17 with distal forearm trauma. 44/89 patients (49%) had a distal radius fracture. Mean thickness of the
18 PQC thickness can reliably be measured on X-ray views and was 7.5 ± 2.8 mm in lateral views (CR),
19 respectively 9.4 ± 3.0 mm in sagittal reconstructions (CT), resulting in a significant correlation
20 coefficient of 0.795. A positive PQS at CR was present in 21/44 patients (48%) with distal radius
21 fracture and in 2/45 patients (4%) without distal radius fracture, resulting in a specificity of 96%
22 and a sensitivity of 48% for the detection of distal radius fractures. There was no correlation
23 between thickness of the PQC and severity of distal radius fractures. Overall, this is an interesting
24 study. It can give clinicians some useful information for the their practice. Please add one anatomic
25 picture of the pronator quadratus fat pad complex. It will be helpful to understand this topic.

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27 One anatomic picture (Figure 1) was added for a better understanding of the anatomy of the
28 pronator quadratus fat pad complex.

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31 Reviewer 2:

32 It is very interesting study which investigated the relationship between pronator quadratus fat pad
33 sign and distal radius fractures. However, the authors did not address how the true lateral
34 radiographs of distal radius achieved. Rotation of wrist can influence the accuracy of measurements.
35 Besides, the measurements were performed on the radiographs. What is the inter- and intraobserver

36 variability? The authors should state them in details and make the measurements well understood by
37 the readers.

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39 We performed Cohen's kappa to determine interobserver variability of the two readers. The results
40 were included in the revised manuscript. To improve understanding of the anatomy and how
41 measurements of the pronator quadratus fat pad complex were performed, Figures 1-3 were
42 added/revised

43 As another limitation of this study we added that true lateral radiographs of the distal radius might
44 be hard to achieve constantly throughout a study collective and that this circumstance might be a
45 slight source of error.