

Peer Review File

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Reviewer A

Comment 1: I would like to read a more fulfilling description of the ligaments/ capsules - how they interact C0-1-2. For instance, the longitudinal fascicle - a part of the cruciate complex.

Reply 1: The apical ligament is often considered a rudimentary structure, and is absent in 20% of cases. The Barkow ligament connects the tip of the odontoid to the occipital condyle, acting to prevent neck hyperextension. The cruciform ligament is made up of longitudinal and transverse bands that center posterior to the odontoid. The transverse bands limit lateral motion of C1 relative to the dens and prevents posterior displacement, while the longitudinal band connects the body of C2 to the Baision

Changes in the text: We have modified our text as advised. Please see Page 4, line 75-80

Comment 2: They show a normal A/P radiograph - that could have been more specific explained by the combined CT and MRI findings- to inform other readers of this article - if they would like to try this approach on other upper cervical patients.

Reply 2: We were not sure how to address this comment, therefore no changes were made

Changes in the text: None

Comment 3: Define ISS score, (presumably injury severity score) and what a higher (ISS) score means, to clarify the intent of this sentence.

Reply 3: Higher Injury Severity Score (ISS) and better neurologic presentation have been associated with missed diagnosis, and delay in treatment has been associated with increased likelihood of neurological deterioration.(5, 7) This is largely due to the fact that patients with higher ISS scores are more likely to present to trauma bays with more life-threatening injuries requiring urgent or emergent intervention, which may draw attention away from an OCD.

Changes in the text: We have modified our text as advised. Please see Page 4, line 91-96

Comment 4: It would be helpful to explain briefly what traction testing involves

Reply 4: During this test, a Mayfield skull clamp is applied to the patient's skull, and manual traction is applied. Lateral XR of the cervical spine are taken prior to traction, and during traction to assess for any cranial displacement of the occipital condyles relative to the atlas.

Changes in the text: We have modified our text as advised. Please see Page 4, line 87 – 89

Comment 5: you mention 'presumed disruption of the C1-C2 disc ' as a mechanism of injury. There is no disc at C1-2. Do you mean the joint complex?

Reply 5: In our case, the initial displacement and likely energy transfer was directed through the C1-C2 articulation, with presumed disruption of the C1-C2 joint complex based on distraction of the posterior column at those levels.

Changes in the text: We have modified our text as advised. Please see page 9 line 204-205

Reviewer B

1. EKG/AO/MRI/ICU/BDI/OR/ROM/CCJ should be defined upon first use in the **Main Text**.

Reply: These have been defined on first use in the main text.

2. In the Main Text, if the references belong to the previous sentences, please identify their correct positions to the front of the punctuation to avoid misunderstandings.

Editorial Office: In the text, references should be cited using numbers in round brackets and their baseline should be the same with the other characters. [e.g., “The First International Consensus Conference on Laparoscopic Liver Surgery was held in Louisville in 2008 (3).”].

Reply: The references have been formatted as requested in the main text.