



Figure 1. Preoperative X-ray showing atlantoaxial subluxation in lateral view in flexion position (a). Preoperative sagittal view of MRI T2 weighted image showing no spinal stenosis or high-intensity signal in atlantoaxial level (b).

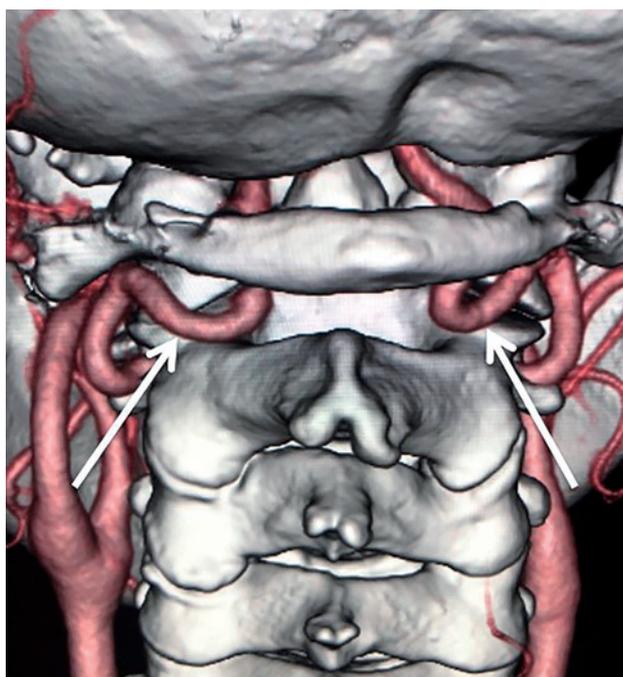


Figure 2. Posterior view on three-dimensional computed tomography angiography showing bilateral persistent first intersegmental artery (white arrow).

expose any bony landmarks when placing TAS for atlantoaxial fixation. We, therefore, applied an O-arm for this case, as it could minimize the exposure of the bony landmarks where the PFIA was located. However, screw malposition in cervical spine with an O-arm has been reported¹⁰⁾. Thus, we need to recognize the potential risks of using an O-arm.

Conflicts of Interest: The authors declare that there are no relevant conflicts of interest.

Author Contributions: Hideaki Kashiro wrote and prepared the manuscript. All authors participated in the study design. All authors have read, reviewed, and approved the article.

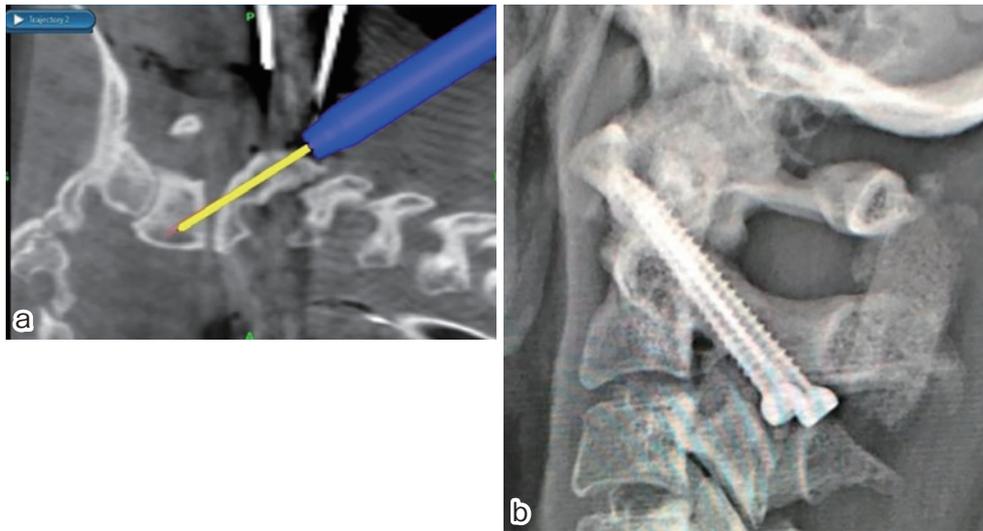


Figure 3. Intraoperative navigation images showing screw holes made with navigated drill guide from the starting point (a). Postoperative X-ray showing proper transarticular screw position (b).

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