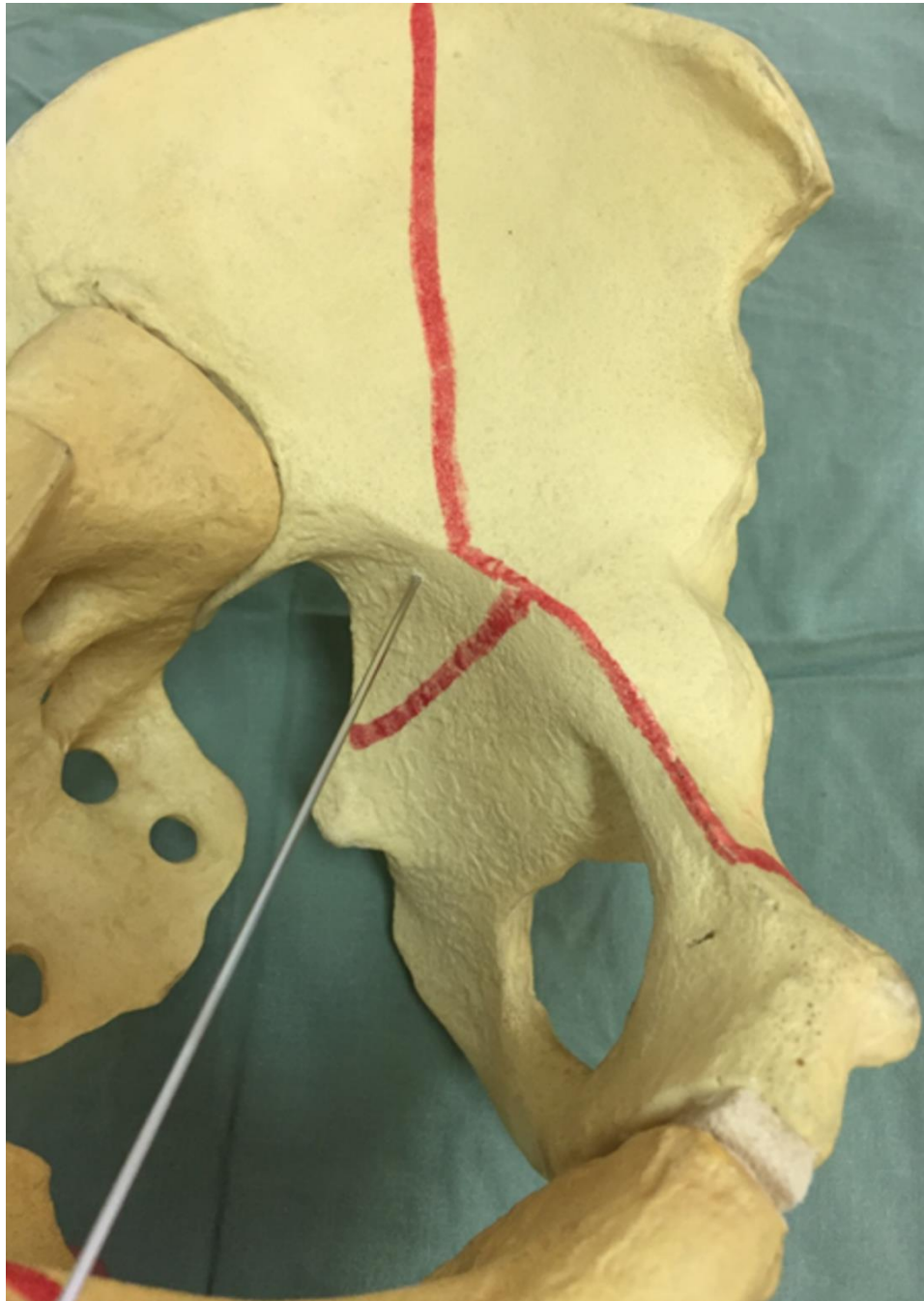
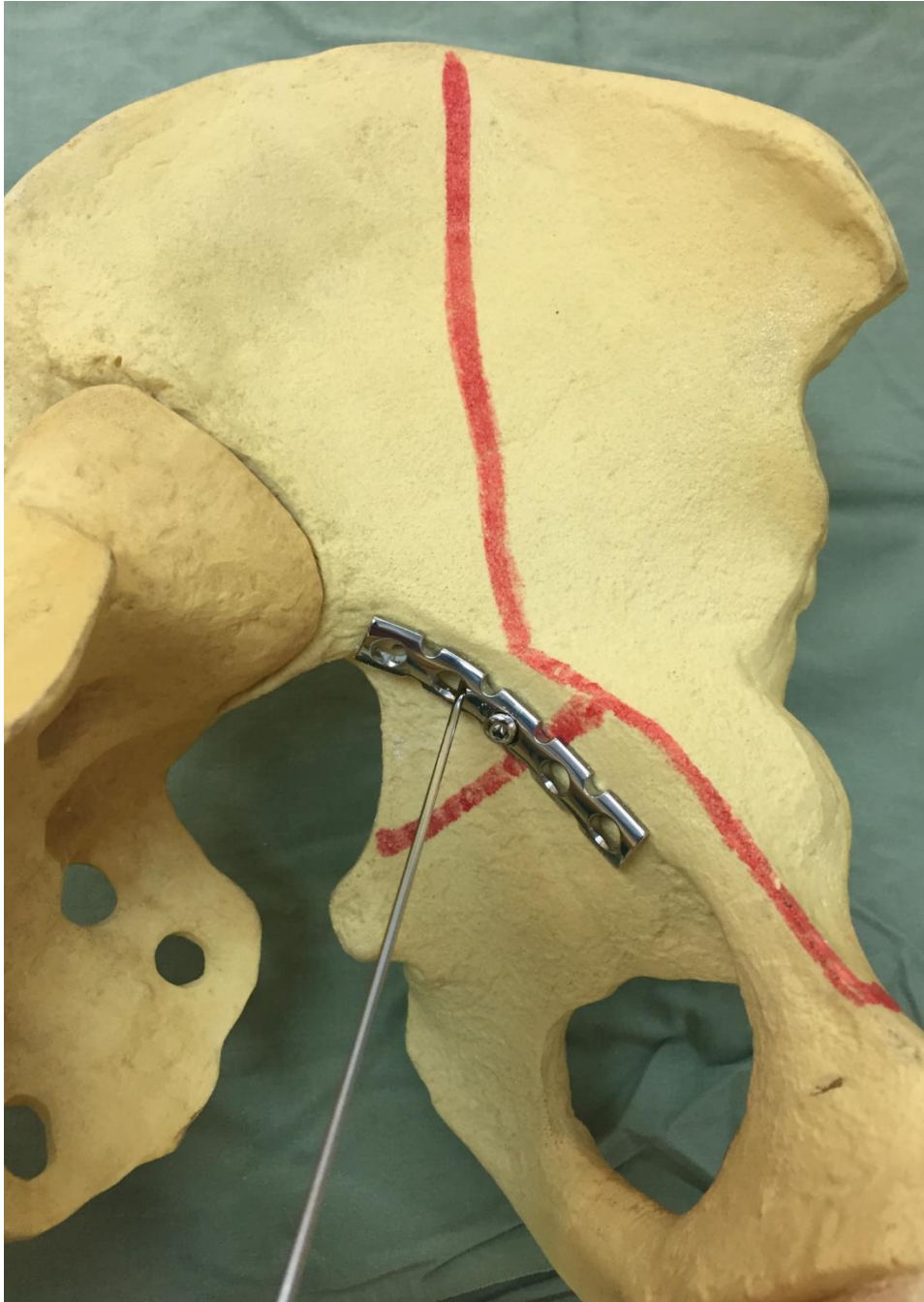




**Fig. E-1:** Reconstruction plate contoured for the anatomic curve of the quadrilateral plate.



**Fig. E-2:** The fracture demonstrated is a superomedial displacement vector subtype 1, which starts from the iliac crest. The fracture of the pelvic brim goes along the pelvic brim. Note that the quadrilateral plate fracture is perpendicular to the pelvic brim. After the exposure of the quadrilateral plate, a 2-mm Kirschner wire or size-2 Steinmann pin is inserted into the stable part of the quadrilateral plate.



**Fig. E-3:** The pre-contoured reconstruction plate is then inserted on the wire (so that it does not get lost in the pelvis). The first screw (closest to the fracture line) is then inserted while using a ball-spike to push the quadrilateral plate laterally into reduction.





**Fig. E-4:** The wire is then retracted and the other screws are inserted. Depending on the angle of the wire, it can sometimes prevent the buttress plate from fully reducing onto the fracture. In that case, the wire needs to be removed and the first screw needs to be further tightened.



**Fig. E-5:** A similar technique of inserting a quadrilateral buttress plate can be used for reduction and fixation of the quadrilateral plate in a superomedial displacement vector subtype-2 fracture, which does not include the iliac wing. Note here that the pelvic-brim fracture crosses the brim. Again, the quadrilateral plate fracture is perpendicular to the pelvic brim.



**Figs. E-6A and E-6B:** Three-dimensional CT scans of a 24-year-old man injured in a motor vehicle accident, fracture group classified as combined displacement vector subtype 2 (transverse and posterior wall). **Fig. E-6A:** A 3-dimensional CT scan of the medial aspect of the hemipelvis.



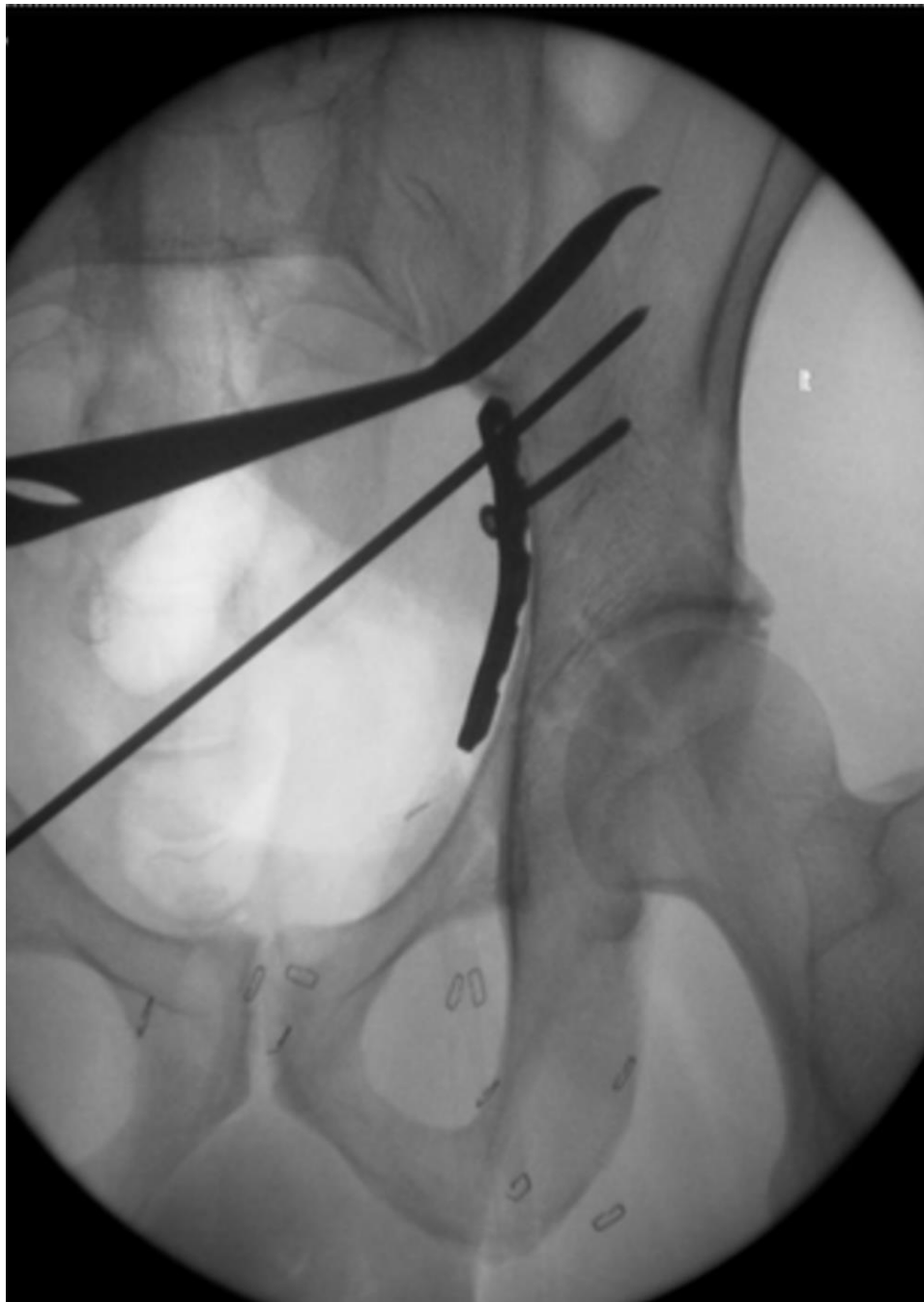
**Fig. E-6B:** A 3-dimensional CT scan of the posterior wall. The characteristics of the subtype-2 fracture can be seen; it does not include the iliac wing, the quadrilateral plate is fractured perpendicular to the pelvic brim, and the pelvic brim fracture is across the pelvic brim. The posterior wall is also broken.



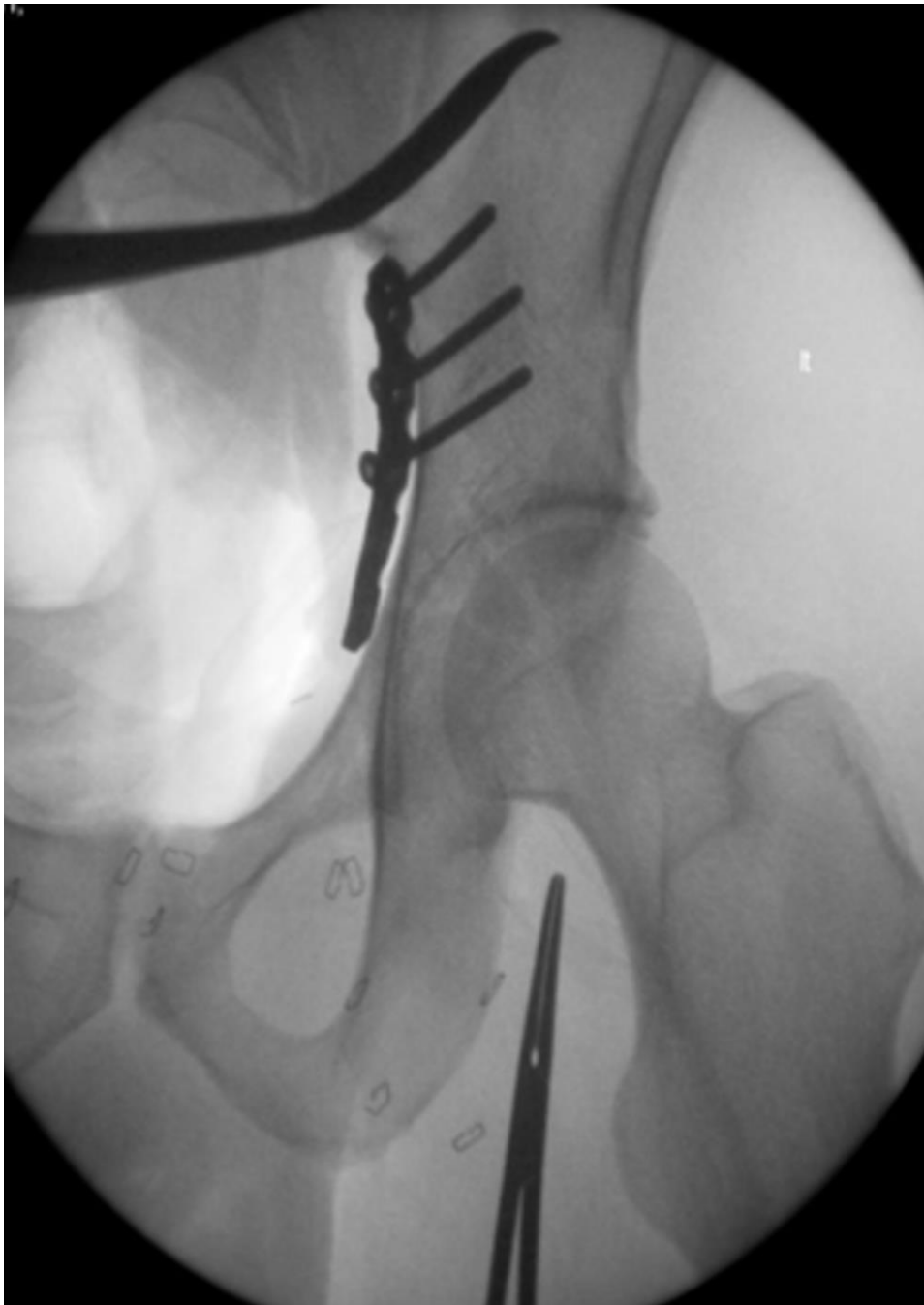


**Figs. E-7A through E-7E:** Fluoroscopic images during the anterior intrapelvic surgical approach. **Figs. E-7A:** Iliac oblique during surgery shows the displacement in the quadrilateral plate.





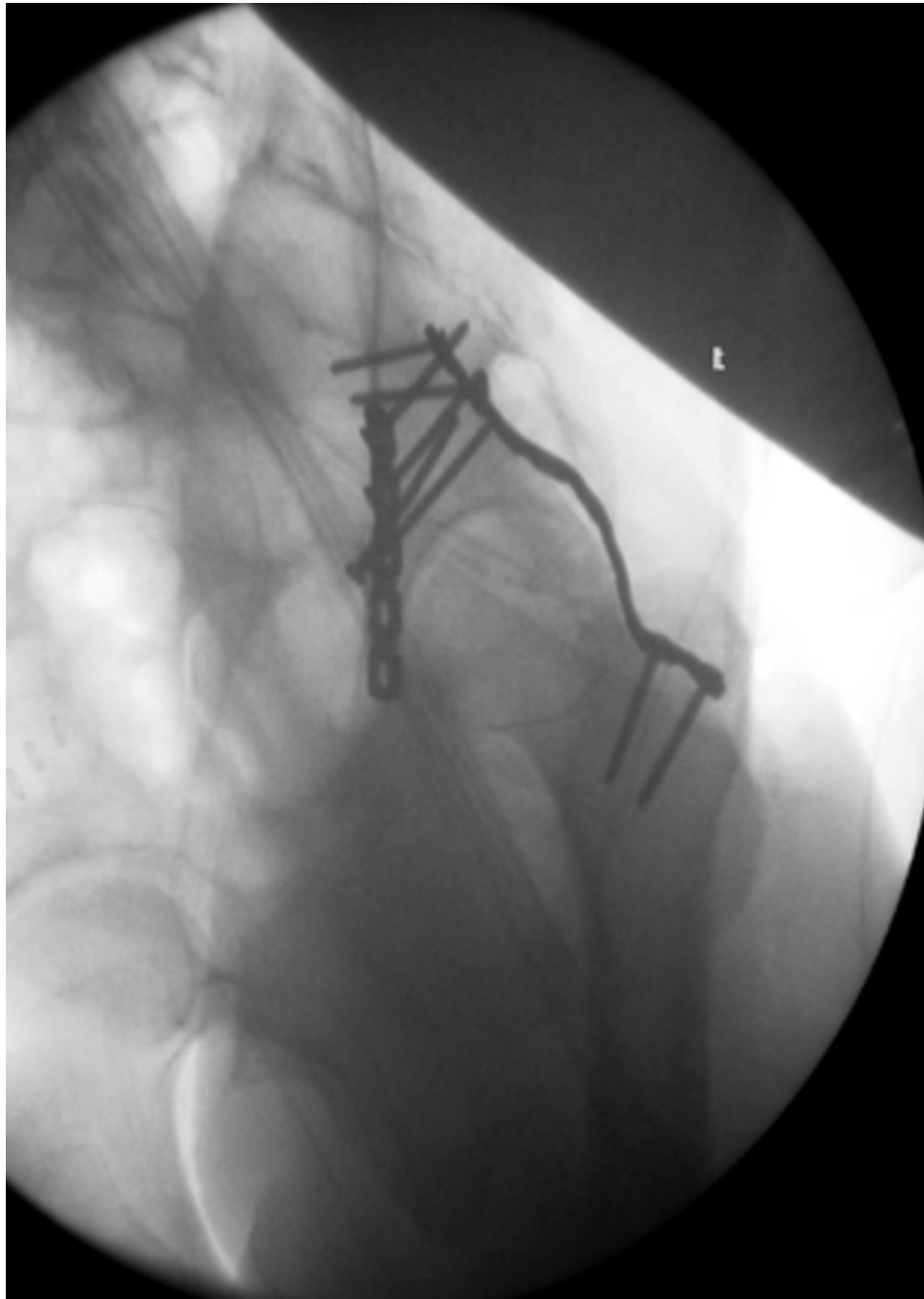
**Fig. E-7B:** Insertion of a 2-mm Kirschner wire; a pre-contoured reconstruction plate is inserted on it for fracture fixation.



**Fig. E-7C:** The quadrilateral plate is reduced and fixed with a buttress plate.



**Fig. E-7D:** The pelvic brim fracture is then reduced and fixed with interfragmentary positional screws. The posterior wall fracture can also be seen.



**Fig. E-7E:** The patient is then turned to the decubitus position and a Kocher-Langenbeck surgical approach is used for fixation of the posterior wall.





**Figs. E-8A, E-8B, and E-8C:** Postoperative radiographs showing the final reduction. **Fig. E-8A:** Anteroposterior view.



**Fig. E-8B:** Obturator oblique view.



**Fig. E-8C:** Iliac oblique view.