

**Anterior Column Screw in the Lateral Decubitus Position: Technical Trick**

*Rahul Vaidya MD; Bryant W Oliphant MD; Petra Gheraibeh MD; Ishan Suresh Patel BS*

Detroit Medical center, detroit, United States Minor Outlying Islands

**Purpose:** The placement of anterior column screws is a useful procedure and has standard views when placing this screw in the supine position. The anterior column axial view allows the ability to properly visualize a good starting point for the screw. Many acetabular procedures are performed in the lateral decubitus position. The purpose of this article is to describe a simple technique to obtain an axial view of the anterior column in the lateral decubitus during the placement of antegrade anterior column screws for acetabular fractures.

**Methods:** The hip over hip image is independent of the tilt of the pelvis forward, backward or the pelvis' natural tendency to angle in the coronal plane. This is the starting image. The C-arm is then rotated 20° cranially. The C-arm is then rotated back 40° over the top in the opposite plane. The axial view of the anterior column comes into plane view and then it is like locking a nail distally with "perfect circles." The direction of the wire should be in line with this view. A Jamshidi needle or a vertebroplasty cannula can be used as it is shorter than the Kirschner wire (K-wire) for 6.5 or 7.3 cannulated screws and can be malleted through the cortex and then can be tapped through the anterior column. We then place a 2.8-mm K-wire with the blunt side in and tap it across the fracture, which may bounce off the cortical bone as described by many previous authors. The fracture is then fixed by a partially threaded cannulated screw.

**Results:** 16 consecutive cases were included. These patients were all transverse or T-type fractures where the major displacement was of the posterior column. Several of them also incurred a posterior wall fracture and some of them a concomitant pelvic ring injury. In all cases, a Kocher Langenbeck approach was utilized for the acetabular fracture and the posterior column was reduced and stabilized first, followed by reduction if necessary and stabilization of the anterior column with an antegrade anterior column screw. A CT scan was performed on all 16 patients, which revealed good positioning of the screw.

**Conclusion:** The axial anterior column view is a helpful view in performing antegrade anterior column screws in the lateral decubitus position. Placing the fluoroscopy machine as described to get the correct starting point and trajectory for this screw is useful.