A technique for supine myelography

Technical note

A technique for obtaining supine views during myelography is described which uses foam rubber pads to support the patient and thus obviates the need for removal and reinsertion of the spinal needle.

**Key Words** - myelography - supine position

Myelography can be a traumatic procedure to patients, especially when supine views are taken, which require removing the needle and reinserting it to withdraw contrast medium. Not only is there unnecessary trauma, but a greater tendency for subdural collection of cerebrospinal fluid (CSF), incomplete removal of the contrast medium, and post-myelogram headaches. Thus, although supine views during myelography give greater diagnostic accuracy, they are not routine in many institutions. We have devised a simple technique for obtaining supine views that obviates the need for removing the spinal needle.

**Technique**

After the patient has been placed in the prone position with the needle in place, we elevate the head of the table 90° so that the patient is in the standing position (Fig. 1 left); he is then turned 90° in a clockwise direction until he is in a lateral decubitus position; rubber foam pads measuring 7 × 10 × 12 in. are then placed behind the buttocks, legs, and scapular region respectively (Fig. 1 right). The patient is then slowly turned another 90° clockwise until the pads are completely under him; the hub of the needle is watched cautiously during this procedure to make sure it remains at a safe distance from the table. Appropriate binders are placed about the patient's shoulders and feet to prevent any slippage as the table is returned to a horizontal position (Fig. 2). After supine views have been taken, the table is again placed in the upright position and the patient turned to the lateral decubitus position while the pads are gradually withdrawn. The patient is then turned until he is in the prone position and the contrast medium removed in the routine manner.

**Results**

We have used this method on 30 patients and have had no complications. We have observed a reduction in the incidence of CSF leaks and post-myelogram headaches.
Physiologically this can be explained by the fact that if the needle is left in place while the patient is supine, no functional tract is present. If the needle is first withdrawn, a needle tract is created and there is a greater tendency for a gravity pressured CSF leak to occur. In fact, many physicians today have patients remain in a prone position for 24 hours following myelography because of the decreased incidence of these complications.

This technique should be reserved for cases in which dorsal pathology or obstructive myelopathy exist. In our cases we have not yet detected any unsuspected pathology but have increased our confidence in ruling out intraspinal disease. The risk of dislodging the needle in such a way as to cause dural tears always exists, and one must be sure the patient is cooperative and secure in the supine position.

References

2. Shapiro R: Myelography. Chicago, Year Book Medical Publishers. 1968, ed 2, pp 186, 188, 239, 240

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