

FIGURE 2 The slip joint prevents compression of the RAE tube between tongue depressor and lower incisor teeth.

2). In addition, the slip joint may prevent herniation, obstruction, and kinking of the RAE tube.^{1,2,4}

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Epidural pressure in a patient with superior vena cava syndrome

To the Editor:

We present a patient in whom the cervical epidural pressure and the extent of epidural analgesia increased after obstruction of the superior vena cava (SVC). In a 76-yr-old man, who suffered from burning pain in his right hand and forearm, an epidural catheter was inserted at the C₇-T₁ interspace and epidural blockade was performed for pain relief due to reflex

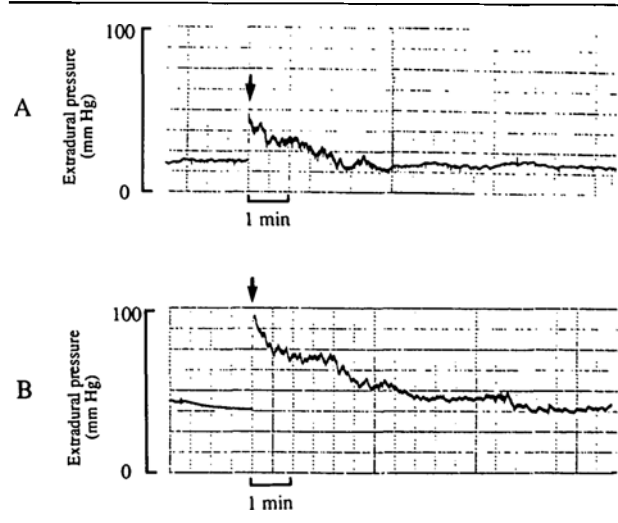


FIGURE The basal epidural pressure was 18 mmHg and after epidural injection of 6 ml of bupivacaine 0.25% (arrow) it increased to 36 mmHg before SVC obstruction (on admission) (A); after SVC obstruction (6th hospital day), the basal pressure was elevated (38 mmHg) and the injection of the same dose of bupivacaine increased it to 98 mmHg (B).

sympathetic dystrophy (RSD). The SVC syndrome abruptly occurred on the sixth hospital day: the SVC was completely obstructed by an apical lung tumour and *in situ* thrombosis, suggesting that his pain was caused by brachial plexus pathology due to the tumour and not by RSD. The epidural pressures were measured through the catheter in the supine position. After SVC obstruction, the basal epidural pressure was elevated: epidural injection of 6 ml bupivacaine 0.25% considerably increased the pressure (Figure) and induced severe headache and nausea. The extent of analgesia was C₄-T₄ and C₄T₁₀ before and after the obstruction, respectively.

Superior vena caval obstruction increases epidural and intracranial pressures (ICP). Since an epidural volume load increases ICP, especially in patients with increased ICP,¹ the epidural injection of bupivacaine would produce an increase in ICP after SVC obstruction. Furthermore, SVC obstruction may unexpectedly increase the extent of epidural analgesia, as was seen in the present patient, probably due to the decreased volume of the epidural space by venous dilatation.

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