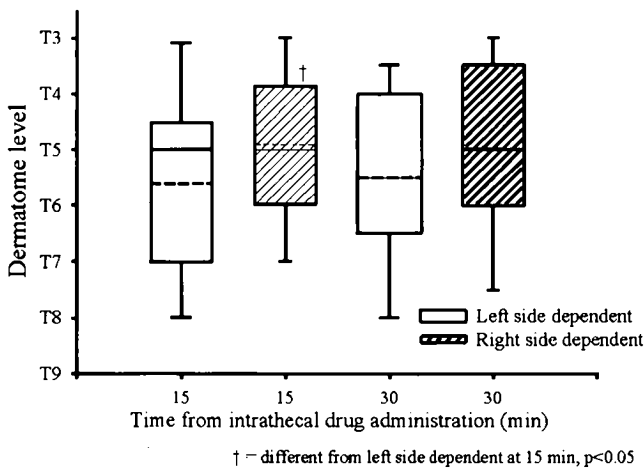


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INFLUENCE OF HEIGHT, WEIGHT AND PATIENT POSITION ON SENSORY LEVEL AFTER INTRATHECAL LABOR ANALGESIA WITH A HYPOBARIC SOLUTION Wong, C.A. Johnson, E.; Strauss-Hoder, T.P.; Cariaso, D.F.; McCarthy, R.J. Northwestern University Medical School, Chicago, IL. Studies have found little correlation with adult patient height, weight or body mass index (BMI) and level of sensory block after subarachnoid anesthesia with iso- or hyperbaric local anesthetic solutions (1,2). The purpose of this prospective study was to determine whether height, weight or BMI influence the sensory level after the intrathecal injection of a hypobaric solution injected in the sitting position. 181 parturients participated in this IRB-approved study. Combined spinal-epidural analgesia was initiated with the parturient in the sitting position at L3-4 or L2-3 with bupivacaine 2.5 mg and fentanyl 25 ug. The parturient was placed in the lateral position (right or left, depending on the direction of the head of the bed relative to the anesthesiologist) within 6 min of the intrathecal injection. At 15 and 30 min the sensory block to cold and pinprick was assessed bilaterally. The correlation between height, weight, BMI and sensory level was analyzed with Pearson's correlation coefficient. The sensory level of patients placed in the left vs. right lateral position was compared with the Mann-Whitney U test. Height was 65.0 ± 2.6 in (mean ± SD), weight 78 ± 13 kg, and BMI 28.5 ± 4.6. There was no correlation between height, weight or BMI to sensory level to cold or pinprick at 15 and 30 min. Parturients placed in the right lateral position had a higher sensory level to pin prick at 15 min compared to those placed in the left lateral position (Fig.). In conclusion, the sensory level after intrathecal injection of a hypobaric anesthetic solution is not predictable based on height or weight. The sensory level may depend on whether the patient is placed in the right or left position following the intrathecal injection. 1) Pargger H, et al. *Acta Anaesthesiol Scand* 1998;42:430-4. 2) Norris MC. *Anesth Analg* 1988;67:555-8.



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ASSESSING THE OUTCOME OF A TEST DOSE Dalal, P.; Gertenbach, K.; Harker, H.; O'Sullivan, G.; Reynolds, F. Anaesthetics, St Thomas, London, United Kingdom. Introduction: Much research has focused on the best test dose to detect accidental i.v. insertion of an epidural catheter, but less on intrathecal (IT) placement. It is often supposed that lidocaine must be used for a quick onset, while test doses are sometimes reported to give false negative results, possibly without complete evaluation. We therefore compared the sensory, motor and sympathetic effects of the same doses of bupivacaine plus fentanyl, given epidurally for analgesia in labor or IT for cesarean section. Method: After ethics committee approval and informed consent, women undergoing elective cesarean section were given spinal anesthesia with hyperbaric 0.5% bupivacaine 10mg and fentanyl 20*mu*g (n=20); women requesting epidural analgesia in labor were given the same mixture epidurally (n=10) or 0.1% bupivacaine 10mL + fentanyl 20*mu*g (n=13). The temperature of the great toes, sensory block on the outer heel (S1), motor block at the ankle and hemodynamic changes were recorded every 2 min for 10 min. Results: Blood pressure and pulse rate had no discriminative power. In no parturient did the remaining tests fail to reveal IT administration or give false positive results (see table). Foot temperature was rapid, but motor block more selective. In one 'epidural' (excluded), a rapid rise in foot temperature was noted immediately, and IT placement was confirmed by aspiration. Conclusion: Bupivacaine 10 mg with fentanyl is a reliable agent to detect IT placement.

		Spinal	Epi large volume	Epi small volume
Sensory loss (n)	2 min	14/20	0/12	0/10
	4 min	19/20	2/12	0/10
	6 min	20/20	3/12	0/10
Motor loss (n)	2 min	15/20	0/12	0/10
	4 min	20/20	0/12	0/10
	6 min	20/20	0/12	0/10
Change in foot temperature (range)	2 min	+1.87 (-1.6 to +7.0)	-0.23 (-1.4 to +0.8)	+0.02 (-1.1 to +1.2)
	4 min	+4.01 (+0.3 to 9.9)	+0.058 (-1.8 to +3.1)	-0.13 (-1.5 to +1.1)
	6 min	+5.88 (+2.42 to 10.1)	-0.07 (-3.05 to +2.9)	-0.3 (-1.2 to +1.4)