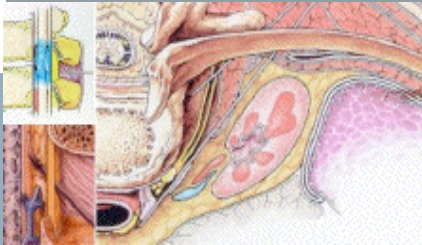


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News You Can Use

Insights Into Clinical Practice



IN THE NEWS BITS AND PIECES

The distribution of distance from the skin to the epidural space in obstetric patients (n=2,123) is: < 3 cm - 0.3%; 3 to < 4 cm - 15%; 4 to < 5 cm - 47.3%; 5 to < 6 cm - 28.6%; 6 to < 7 cm - 6.9%; 7 to < 8 cm - 1.4%; and > 8 cm - 0.5% (1). The mean value of the distance from skin to the epidural space in term parturients is influenced by the patient's position during epidural needle placement. It is 4.44 ± 0.82 cm in the sitting position and 5.03 ± 1.05 cm in the lateral position (1). Spinal dura mater thickness at the lumbar region is 0.5 mm (2).

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1. Hamza J, Smida M, Benhamou D, Cohen SE. Parturient's posture during epidural puncture affects the distance from skin to epidural space. *J Clin Anesth* 1995;7:1-4

2. Cheng PA. The anatomical and clinical aspects of epidural anesthesia. Part I. *Anesth Analg* 1963;42:398-406

Does Epidural Analgesia Predispose the Parturient to Cesarean Delivery?



A recent story appearing in a web-based news service trumpeted the rather sensational headline, "Epidural During Labor Linked to Abnormal Head Position" which to the the majority of uninformed dilettantes would be a source of great consternation. Submitted by the Reuters news service, the article stated that "receiving epidural analgesia during labor seems to increase the risk that the baby will be delivered face up instead of the normal face-down position" and that, "this may

explain the higher rate of c-sections associated with epidurals." Lets get the story straight. The article, which appeared in the May, 2005 edition of *Obstetrics and Gynecology*(1), prospectively evaluated 1,562 women of which 92% received epidural analgesia for labor. What the researchers found was that fetal position changes are common during labor and that the initial position was not a strong predictor of position at delivery. Using serial ultrasound examinations, Lieberman and colleagues found that approximately 49 percent of fetuses were facing sideways, 27 percent were facing down and 24 percent were facing up (occiput posterior) at the time of enrollment into the study. But at the time of delivery, 8 percent faced sideways, 80 percent faced down, and 12 percent faced up. The researchers found that at the time of delivery, women receiving epidural analgesia did have more occiput posterior fetuses at delivery (12.9% epidural versus 3.3% no epidural, $P = .002$); but epidural analgesia was not associated with the sideways-facing position and it was from this head presentation that the rate of cesarean delivery was strongly dependent (6.3 percent with face down, 65 percent with face up, and 74 percent with face sideways). Hence, it is misleading to believe that epidural analgesia predisposes the parturient to surgical intervention; rather what the authors demonstrated was that there was a strong association of epidural with fetal occiput posterior position at delivery and that this represents a mechanism that may contribute to the lower rate of spontaneous vaginal delivery.

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References:

Lieberman E, Davidson K, Lee-Parritz A and Shearer E.; *Changes in Fetal Position During Labor and Their Association With Epidural Analgesia; Obstetrics & Gynecology* 2005;105:974-982

