

We will try to publish authors' responses in the same edition with readers' comments. Time constraints might prevent this in some cases. The problem is compounded in a bimonthly journal where continuity of comment and redress are difficult to achieve. When the redress appears 2 months after the comment, 4 months will have passed since the original article was published. Therefore, we would suggest to our readers that their correspondence about published papers be submitted as soon as possible after the article appears.

Epidural Anesthesia and Cesarean Section

To the Editor: Nesbitt, in an otherwise insightful editorial, cites a single, flawed study to support his contention that "it is increasingly important to avoid epidural anesthesia.... Randomized controlled trials have well documented that epidural anesthesia increases the need for assisted and Cesarean births."¹

Careful reading of the study by Thorp et al² quoted in Nesbitt's article reveals a number of flaws: the obstetricians were the sole judge of whether Cesarean delivery was to be undertaken without predetermined study guidelines; the obstetricians who made decisions for Cesarean delivery were not blinded to the anesthetic technique and were biased against epidural analgesia; not all patients were offered or given epidural analgesia; the concentration of the local anesthetic used and the infusion rate of the epidural analgesic were not stated; and, most importantly, the study was not "blind" in that the investigators "peeked" at the data several times during the trial and they stopped the trial after only 93 of a proposed 200 patients were studied.

"Peeking," that is, analyzing the data while a study is in progress, does not allow statistics such as Fisher's exact test and the chi-square test to be used before all of the subjects have completed the trial because multiple analyses of the data may increase the risk of a Type I error if the study is terminated as soon as a significant difference is found. Sequential analysis for concurrent data would have been more appropriate.

There are several well-designed studies that contradict Nesbitt's view as stated above.

Subsequent to Thorp et al,² in a well-designed series of studies including nearly 500 women, Chestnut et al studied nulliparous women both in oxytocin-augmented labor³ and in spontaneous labor⁴ and did not find a difference in operative delivery with early (less than 5 cm of cervical dilation) epidural administration of dilute local anesthetic solutions.

Additionally, Neuhoff et al,⁵ in a review of 607 women, found that the Cesarean section rate was three times higher on a private service than on a clinic service when epidural analgesia was used and two times higher when epidural analgesia was not used. Eighty

percent of the Cesarean sections on the private service were for failure to progress. It can be concluded that it is the obstetric management rather than the anesthetic technique that determines the Cesarean section rate.

The Thorp et al² study did not look at the incidence of assisted births; however, Hawkins et al⁶ reviewed 14,804 deliveries and found that there were four factors in addition to epidural analgesia that were associated with an increased incidence of instrument-assisted deliveries. Gestational age greater than 41 weeks, second stage of labor longer than 2 hours, occiput transverse or occiput posterior position, and previous Cesarean delivery were all independently and individually found to be associated with an increase in the incidence of instrument delivery.

The American College of Obstetrics and Gynecology and the American Society of Anesthesiologists have stated: "Labor results in severe pain for many women. There is no other circumstance where it is considered acceptable for a person to experience severe pain, amenable to safe intervention, while under a physician's care. Maternal request is a sufficient justification for pain relief during labor."⁷

Unfortunately and regrettably the study of Thorp et al² is being misinterpreted and could be prompting obstetric practitioners at all levels to restrict access to effective pain relief during labor.

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References

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