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Respiratory Depression Following Intrathecal Opioids

To the Editor:—I wish to congratulate Palmer on his recent case report and discussion of sudden-onset respiratory depression following intrathecal fentanyl administration in a woman undergoing cesarean section.¹ Numerous conversations with anesthesiologists and obstetricians who advocate (and practice) single-shot intrathecal fentanyl-morphine or sufentanil-morphine combinations for labor analgesia, as described by Leighton *et al.*,² with minimal monitoring suggest that this report has wide relevance in obstetric anesthesia.

Intrathecal administration of lipid-soluble opioids produces rapid onset, excellent analgesia during early labor. Numerous reports of single-shot,² continuous intrathecal microcatheter,³ and combined intrathecal-epidural⁴ techniques support the flexibility and utility of intrathecal opioids during labor. Benefits of this therapy, which have rapidly expanded its use, include lack of hemodynamic or motor effects, thereby avoiding detrimental effects on placental perfusion and allowing ambulation. Also, it is conceivable that providing analgesia earlier in labor may decrease the incidence of fetal stress, dysfunctional labor, and cesarean section.⁵

Palmer's report¹ warns us yet again that intrathecally administered opioids may rarely produce life-threatening respiratory depression. Whereas it is not certain whether the effect was due to morphine or fentanyl, the abrupt onset 25 min following administration, corresponding to times of high local concentrations of fentanyl in cervical cerebrospinal fluid of humans receiving fentanyl at lumbar levels,⁶ is consistent with an action of fentanyl. The abrupt onset and timing are worrisome, since maternal and fetal monitoring may be much less extensive in early labor—the time that this therapy has been advocated—and since monitoring by anesthesia staff is likely to be much less extensive with this therapy than with traditional epidural local anesthetic techniques. Should this case have occurred in a woman alone in a labor room without some form of continuous monitoring, the results could have been disastrous.

Clearly the benefits from intrathecal administration of lipid-soluble opioids for labor analgesia are manifold and important. This report does not establish the need for expensive monitoring (*e.g.*, pulse oximetry) for these patients but does reemphasize the importance of vig-

ilance in this as in all areas of our specialty. I agree entirely with Palmer that, contrary to the views of many practitioners, "until wider experience is gained with larger series, prudence dictates that all patients receiving such intrathecal opioids or combinations, including parturient women, be closely and appropriately monitored to detect the abrupt onset of respiratory depression."

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Anaphylaxis during Anesthesia

To the Editor:—To evaluate patients with suspected drug-induced anaphylactic reactions during anesthesia, we are currently studying a new test for mast-cell activation that should be helpful in investigating these life-threatening reactions. If you have a patient who has developed a suspected anaphylactic reaction, please obtain one serum or plasma sample as soon as possible during the reaction, and then an additional sample 1 h later, and forward to me with the anesthesia records.

If you have any questions, please also call (404) 248-3203.

Thank you for your cooperation.

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