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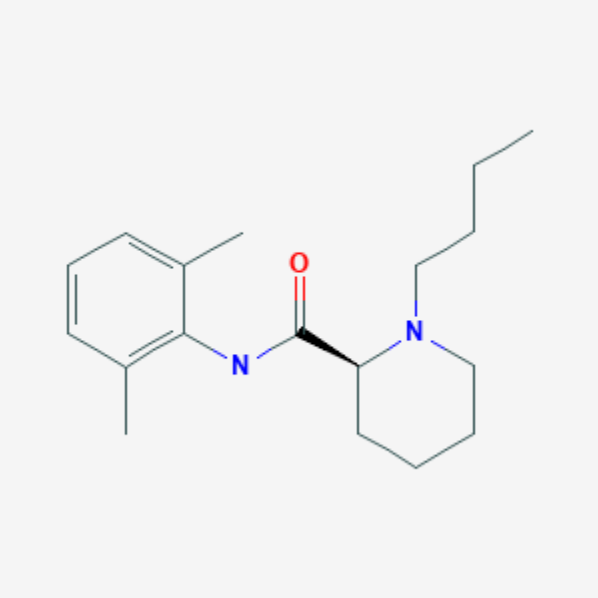
Levobupivacaine

Revised: December 3, 2018.

CASRN: 27262-47-1



Drug Levels and Effects

Summary of Use during Lactation

Levobupivacaine levels in breastmilk are low, and it is poorly absorbed orally by the infant. Bupivacaine, the racemic mixture of dextro- and levobupivacaine, has not caused any adverse effects in breastfed infants.

Local anesthetics *during* labor and delivery with other anesthetics and analgesics has been reported by some to interfere with breastfeeding. However, this assessment is controversial and complex because of the many different combinations of drugs, dosages and patient populations studied as well as the variety of techniques used. In contrast, epidural local anesthetics begun *after* clamping of the umbilical cord appears to enhance breastfeeding success because of improved pain control. Labor pain medication may delay the onset of lactation. In one study, adding levobupivacaine wound infiltration to multimodal analgesia after cesarean section improved breastfeeding comfort.

Drug Levels

Maternal Levels. Twenty women undergoing cesarean section deliveries with epidural anesthesia were randomized to receive either levobupivacaine 0.5% (n = 10) or bupivacaine 0.5% (n = 10) in a single-blinded study. The drugs were given as 0.5 mL (2.5 mg) boluses as needed up to 150 mg (mean 80 mg). Blood and milk samples were obtained before and 0.5, 1, 2, 6, 12 and 24 hours after administration of the drugs. Levobupivacaine was detected in breastmilk 30 minutes after administration, with the peak milk concentration of about 0.25 mg/L occurring at about 2 hours after administration. Levobupivacaine was almost at baseline level by 7 hours and absent from milk (<5 mcg/L) by 24 hours after the dose. The passage of racemic bupivacaine into breastmilk was virtually identical.[1]

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

Relevant published information on levobupivacaine was not found as of the revision date. However, bupivacaine administered to the mother by intrapleural or epidural routes had no effect on 13 breastfed infants.[2]

Effects on Lactation and Breastmilk

A nonrandomized convenience sample of women who did (n = 209) or did not (n = 157) receive epidural analgesia during labor was analyzed to determine whether epidurals affected the onset of lactation. Although not standardized, the typical procedure used sufentanil 10 to 15 mg together with either ropivacaine 0.1% or levobupivacaine 0.0625% epidurally, supplemented by epidural boluses of ropivacaine 0.1% or levobupivacaine 0.0625% about every 2 hours. No difference was found in the time of lactation onset between the two groups. Although women in both groups stated they wished to breastfeed prior to delivery, exclusive breastfeeding at 20 days postpartum was less frequent in the women who received an epidural (43%) than in women who did not (57%).[3]

A randomized, unblinded study of women undergoing cesarean section found that women who received postoperative wound infiltration with levobupivacaine. A bolus of 50 mg was infused subfacially 5 cm lateral to the wound incision, followed by 6.25 mg/hour for 48 hours. Additional analgesia included acetaminophen, celecoxib, nefopam, morphine an droperidol. On day 2 postpartum, women who received the levobupivacaine infusion reported more comfort with breastfeeding. More women who received the levobupivacaine were breastfeeding on day 2, but the difference was not statistically significant.[4]

Alternate Drugs to Consider

Lidocaine, Ropivacaine

References

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2. Ortega D, Viviand X et al. Excretion of lidocaine and bupivacaine in breast milk following epidural anesthesia for cesarean delivery. Acta Anaesthesiol Scand. 1999;43:394-7. PubMed PMID: 10225071.
3. Mauri PA, Contini NN, Giliberti S et al. Intrapartum epidural analgesia and onset of lactation: A prospective study in an Italian birth centre. Matern Child Health J. 2015;19:511-8. PubMed PMID: 24894732.
4. Jolly C, Jathieres F, Keita H et al. Cesarean analgesia using levobupivacaine continuous wound infiltration: A randomized trial. Eur J Obstet Gynecol Reprod Biol. 2015;194:125-30. PubMed PMID: 26366789.

Substance Identification

Substance Name

Levobupivacaine

CAS Registry Number

27262-47-1

Drug Class

Breast Feeding

Lactation

Anesthetics, Local