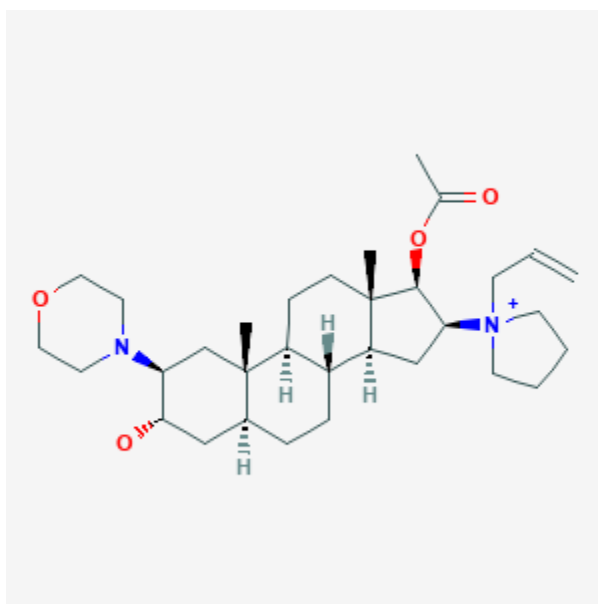




Rocuronium

Revised: December 3, 2018.

CASRN: 143558-00-3



Drug Levels and Effects

Summary of Use during Lactation

Limited information on the use of rocuronium during breastfeeding indicates that no adverse infant effects occur. Because it is short acting, highly polar and poorly absorbed orally, it is not likely to reach the breastmilk in high concentration or to reach the bloodstream of the infant.[1][2] When a combination of anesthetic agents is used for a procedure, follow the recommendations for the most problematic medication used during the procedure. General anesthesia for cesarean section using rocuronium as a component may delay the onset of lactation.

Drug Levels

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

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

Effects in Breastfed Infants

Four mothers who underwent general anesthesia were given propofol and remifentanyl as induction agents and rocuronium for intubation. After induction, propofol was stopped and xenon inhalation was used to maintain anesthesia for between 57 and 70 minutes. Infants resumed breastfeeding from 1.5 to 5 hours after the end of surgery. None of the infants had noticeable symptoms of dizziness or drowsiness. All infants fared well at home after their mothers were discharged.[3]

Effects on Lactation and Breastmilk

A randomized study compared the effects of cesarean section using general anesthesia, spinal anesthesia, or epidural anesthesia, to normal vaginal delivery on serum prolactin and oxytocin as well as time to initiation of lactation. General anesthesia was performed using propofol 2 mg/kg and rocuronium 0.6 mg/kg for induction, followed by sevoflurane and rocuronium 0.15 mg/kg as needed. After delivery, patients in all groups received an infusion of oxytocin 30 international units in 1 L of saline, and 0.2 mg of methylergonovine if they were not hypertensive. Fentanyl 1 to 1.5 mcg/kg was administered after delivery to the general anesthesia group. Patients in the general anesthesia group (n = 21) had higher post-procedure prolactin levels and a longer mean time to lactation initiation (25 hours) than in the other groups (10.8 to 11.8 hours). Postpartum oxytocin levels in the nonmedicated vaginal delivery group were higher than in the general and spinal anesthesia groups.[4]

Alternate Drugs to Consider

Atracurium, Cisatracurium

References

1. Spigset O. Anaesthetic agents and excretion in breast milk. *Acta Anaesthesiol Scand.* 1994;38:94-103. PubMed PMID: 8171959.
2. Dalal PG, Bosak J, Berlin C. Safety of the breast-feeding infant after maternal anesthesia. *Paediatr Anaesth.* 2014;24:359-71. PubMed PMID: 24372776.
3. Stuttmann R, Schafer C, Hilbert P et al. The breast feeding mother and xenon anaesthesia: four case reports. *Breast feeding and xenon anaesthesia. BMC Anesthesiol.* 2010;10:1. PubMed PMID: 20167123.
4. Kutlucan L, Seker IS, Demiraran Y et al. Effects of different anesthesia protocols on lactation in the postpartum period. *J Turkish German Gynecol Assoc Artemis.* 2014;15:233-8. PubMed PMID: 25584032.

Substance Identification

Substance Name

Rocuronium

CAS Registry Number

143558-00-3

Drug Class

Breast Feeding

Lactation

Muscle Relaxants

Neuromuscular Nondepolarizing Agents