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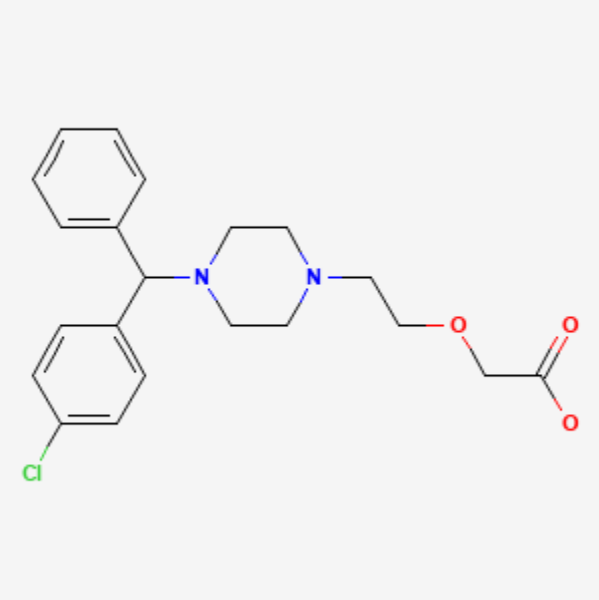
Cetirizine

Revised: January 15, 2024.

CASRN: 83881-51-0



Drug Levels and Effects

Summary of Use during Lactation

Small occasional doses of cetirizine are acceptable during breastfeeding. Larger doses or more prolonged use may cause drowsiness and other effects in the infant or decrease the milk supply, particularly in combination with a sympathomimetic such as pseudoephedrine or before lactation is well established.[1,2] International guidelines recommend cetirizine as an acceptable choice if an antihistamine is required during breastfeeding. Cetirizine has been used successfully in cases of persistent pain of the breast during breastfeeding.[3]

Ophthalmic use of cetirizine by the mother should pose little risk to the breastfed infant. To substantially diminish the amount of drug that reaches the breastmilk after using eye drops, place pressure over the tear duct by the corner of the eye for 1 minute or more, then remove the excess solution with an absorbent tissue.

Drug Levels

Maternal Levels. Three women who were exclusively breastfeeding their 5- to 6-month-old infants were taking cetirizine 10 mg daily by mouth. Each mother donated milk samples before a dose and 1, 2, 4, 6, 8, 10, 12 and 24 hours after the dose. An average peak level of 49 mcg/L occurred at an average of 2 hours after the dose. The average milk concentration over the 24-hour period was 21.1 mcg/L. An exclusively breastfed infant would receive an average of 3.1 mcg/kg daily or a weight-adjusted dosage of 1.77% of the maternal dosage.[4]

As part of a validation study on analysis of cetirizine and levocetirizine in breastmilk, 252 steady-state milk samples from 228 women taking either cetirizine 5 to 20 mg daily (n = 229) or levocetirizine 5 mg daily (n = 9) were analyzed. Specific dosages and times of milk collection were not given. The median milk concentrations of cetirizine and levocetirizine was 13 mcg/L (range 0.65 to 65 mcg/L; IQR 4.9 to 24.8 mcg/L) in 228 samples. Twenty-four samples had levels below the limit of quantification (<0.39 mcg/L).[5]

Women taking cetirizine (n = 31) collected complete sample of milk at about 0, 2, 4, 8, 12 and 24 hours after a daily dose and submitted aliquots for analysis. The average milk concentration was 16.8 mcg/L and the half-life in milk was 7 hours. The peak milk concentration averaged 41 mcg/L at an average time of 2.4 hours after a dose. Using the peak milk concentration, the authors calculated that a fully breastfed infant would receive a maximum of 2.5 mcg/kg daily, which represents a relative infant dose of 1.9%.[6] Using the average concentration would result in a daily infant dosage of 1 mcg/kg daily and a relative infant dose of 0.8%.

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

Effects in Breastfed Infants

In one telephone follow-up study, mothers reported irritability and colicky symptoms 10% of infants exposed to various antihistamines and drowsiness was reported in 1.6% of infants. None of the reactions required medical attention.[7]

A woman who was nursing (extent not stated) her newborn infant was treated for pemphigus with oral prednisolone 25 mg daily, with the dosage increased over 2 weeks to 60 mg daily. She was also taking cetirizine 10 mg daily and topical betamethasone 0.1% twice daily to the lesions. Because of a poor response, the betamethasone was changed to clobetasol propionate ointment 0.05%. She continued breastfeeding throughout treatment and her infant was developing normally at 8 weeks of age and beyond.[8]

A woman with narcolepsy took sodium oxybate 4 grams each night at 10 pm and 2 am as well as fluoxetine 20 mg and cetirizine 5 mg daily throughout pregnancy and postpartum. She breastfed her infant except for 4 hours after the 10 pm oxybate dose and 4 hours after the 2 am dose. She either pumped breastmilk or breastfed her infant just before each dose of oxybate. The infant was exclusively breastfed or breastmilk fed for 6 months when solids were introduced. The infant was evaluated at 2, 4 and 6 months with the Ages and Stages Questionnaires, which were withing the normal range as were the infant's growth and pediatrician's clinical impressions regarding the infant's growth and development.[9]

Three women taking long-term cetirizine 10 mg daily by mouth while exclusively breastfeeding their 5- to 6-month old infants. The mothers reported no adverse effects in their infants.[4]

Thirty-one women taking cetirizine 10 mg (n = 29) or 20 mg (n = 2) daily reported no adverse effects in 61% of their infants and minor adverse effects fever, sedation, rash, poor feeding, bruising, refusing of the breast or constipation. But mothers attributed these effects to other causes such a cold, weaning or learning to crawl.[6]

Effects on Lactation and Breastmilk

Antihistamines in relatively high doses given by injection can decrease basal serum prolactin in nonlactating women and in early postpartum women.[10,11] However, suckling-induced prolactin secretion is not affected by antihistamine pretreatment of postpartum mothers.[10] Whether lower oral doses of cetirizine have the same effect on serum prolactin or whether the effects on prolactin have any consequences on breastfeeding success have not been studied. The prolactin level in a mother with established lactation may not affect her ability to breastfeed.

In a study of 31 women taking cetirizine 10 mg (n = 29) or 20 mg (n = 2) daily, 10 reported a perceived decrease in milk supply over the prior 3 days.[6]

Alternate Drugs to Consider

Desloratadine, Fexofenadine, Levocetirizine, Loratadine

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Substance Identification

Substance Name

Cetirizine

CAS Registry Number

83881-51-0

Drug Class

Breast Feeding

Lactation

Milk, Human

Antihistamines