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C1 Esterase Inhibitor

Revised: December 3, 2018.

CASRN: 80295-38-1

Drug Levels and Effects

Summary of Use during Lactation

C1 esterase inhibitor [human] is a serine proteinase inhibitor derived from human plasma that is used in treating hereditary angioedema. Breastmilk levels of C1 esterase inhibitor have not been measured after exogenous administration in humans. Because of its large molecular weight, amounts in milk are expected to be small. Any C1 esterase inhibitor in breastmilk is probably destroyed in the infant's gastrointestinal tract and not absorbed, except perhaps in neonates. Various international consensus panels state that human plasma-derived C1 esterase inhibitor is considered to be the therapy of choice for both treatment and prophylaxis of maternal hereditary angioedema during lactation.[1][2]

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

Three patients with hereditary angioedema received C1 esterase inhibitor concentrate on 12 occasions to relieve abdominal edematous episodes during breastfeeding. No adverse reactions were reported.[3]

In a case series spanning 12 years, 21 mothers with hereditary angioedema breastfed their infants for a median duration of 4.8 months (range 1 to 34 months) while receiving C1 esterase inhibitor concentrate as needed. No side effects occurred tin the breastfed infants.[4]

A pregnant woman with severe hereditary angioedema required 500 IU of C1 inhibitor concentrate every 2 days to maintain her pregnancy. Postpartum, she received 500 IU on demand while breastfeeding. She used 88 vitals during her 6-month breastfeeding (extent not stated) period. No side effects or viral transmission were reported and or virus anti-C1-INH antibodies were not detected.[5]

A woman with hereditary angioedema received C1 inhibitor concentrate 1000 units every week during pregnancy. Postpartum she used 500 units as needed. She and her breastfed infant were reportedly healthy.[6]

Effects on Lactation and Breastmilk

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

References

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5. Farkas H, Csuka D, Toth F et al. Successful pregnancy outcome after treatment with C1-inhibitor concentrate in a patient with hereditary angioedema and a history of four miscarriages. Eur J Obstet Gynecol Reprod Biol. 2012;165:366-7. PubMed PMID: 22884590.
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Substance Identification

Substance Name

C1 Esterase Inhibitor

CAS Registry Number

80295-38-1

Drug Class

Breast Feeding

Lactation

Complement C1 Inactivator Proteins