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Cycloserine

Revised: September 21, 2020.

CASRN: 68-41-7

Drug Levels and Effects

Summary of Use during Lactation

Limited information from an old study indicates that maternal doses of cycloserine of 1 gram daily produce moderate levels in milk. If cycloserine is required by the mother, it is not a reason to discontinue breastfeeding, especially if the infant is older than 2 months. Exclusively breastfed infants should be monitored if this drug is used during lactation, possibly including measurement of serum levels to rule out toxicity if there is a concern.

Drug Levels

Maternal Levels. In 5 women (time postpartum not stated) receiving oral cycloserine 250 mg 4 times daily, single milk levels from each of the mothers (collection times not stated) averaged 13.4 mg/L (range 6 to 19 mg/L).[1] It is estimated that a fully breastfed infant would receive 1.7 mg/kg daily or 11 to 28% of a usual infant dosage.[2,3]

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

Effects in Breastfed Infants

No adverse effects were noted in 5 in breastfed infants (ages not stated) whose mothers were taking oral cycloserine 250 mg 4 times daily.[1]

Cycloserine was used as part of multi-drug regimens to treat 5 women with multidrug-resistant tuberculosis, 4 throughout pregnancy and postpartum and the other postpartum only. The infants were breastfed (extent and duration not stated). At age 1.25, 1.8, 3.9, 4.6 and 5.5 years, the children were developing normally except for a mild speech delay in one and hyperactivity in another.[4]

Effects on Lactation and Breastmilk

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

References

1. Morton RF, McKenna MH, Charles E. Studies on the absorption, diffusion, and excretion of cycloserine. Antibiot Annu. 1955-1956;1956(31):169–72. PubMed PMID: 13355263.
2. Snider DE Jr, Powell KE. Should women taking antituberculosis drugs breast-feed? Arch Intern Med. 1984;144:589–90. PubMed PMID: 6367682.
3. Tran JH, Montakantikul P. The safety of antituberculosis medications during breastfeeding. J Hum Lact. 1998;14:337–40. PubMed PMID: 10205455.
4. Drobac PC, del Castillo H, Sweetland A, et al. Treatment of multidrug-resistant tuberculosis during pregnancy: long-term follow-up of 6 children with intrauterine exposure to second-line agents. Clin Infect Dis. 2005;40:1689–92. PubMed PMID: 15889370.

Substance Identification

Substance Name

Cycloserine

CAS Registry Number

68-41-7

Drug Class

Breast Feeding

Lactation

Anti-infective Agents

Antibiotics, Antitubercular