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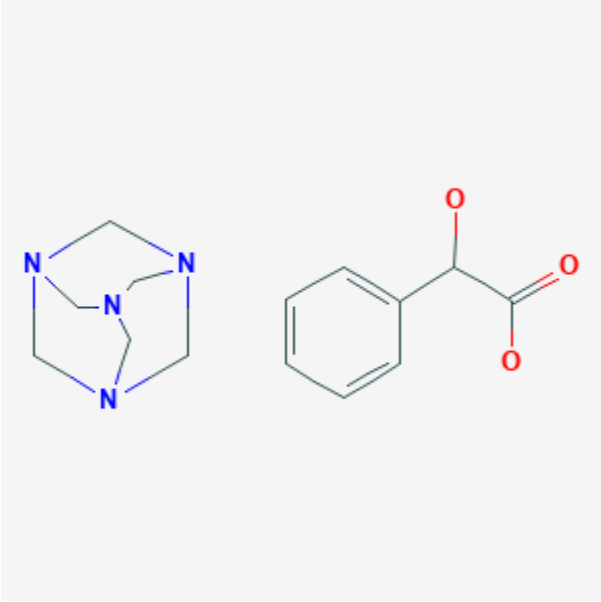
Methenamine Mandelate

Revised: October 31, 2018.

CASRN: 587-23-5



Drug Levels and Effects

Summary of Use during Lactation

Both methenamine and mandelic acid pass into milk in small quantities. Methenamine mandelate appears acceptable to use, even while nursing a newborn.

Drug Levels

The time of the peak amounts in milk depends on the food taken with the drug and the dosage form of the drug. Rapid-release capsules of nitrofurantoin macrocrystals reach their peak milk levels either 1 to 2 hours after the dose with food or 4 hours after a high-fat meal. The sustained-release product (Macrobid) has not been studied, but probably has a delayed peak milk time that would be difficult to predict in an individual mother.

*Maternal Levels.*In one early report, random samples of milk from several women in the first few days postpartum who were receiving 100 mg orally 4 times daily were tested for nitrofurantoin. Nitrofurantion was undetectable (<2 mg/L) in 20 samples measured.[2]

A second study found milk levels ranging from 0 to 0.5 mg/L in 4 women (time postpartum not stated) 2 hours after a single dose of 200 mg of nitrofurantoin was given orally during therapy with 100 mg 4 times a day. In 5 others receiving 100 mg orally 4 times daily, no drug was detected in milk levels (assay limit not stated).[3]

Six women who were 3 to 6 days postpartum were given 50 or 100 mg of macrocrystalline nitrofurantoin orally 3 times a day. Nitrofurantoin was undetectable (<10 mcg/L) in all women before the first dose of the second day of administration with breakfast (fat content not stated). Peak milk levels occurred 1 to 2 hours after the dose. Mothers taking the 50 mg dose had an average of 0.49 mg/L (range 0.2 to 0.7 mg/L) in milk 3 hours after the dose and those given 100 mg had milk levels of 1.19 mg/L (range 0.62 to 2.22 mg/L) in milk at 3 hours. The authors calculated that between 0.06 and 0.28% of a dose was excreted into milk during the 6 hours after a dose.[4]

Four women who were 8 to 26 weeks postpartum received a single 100 mg dose of nitrofurantoin macrocrystals orally with a high-fat meal. Under these conditions, peak milk levels occurred 4 to 6 hours after the dose. Peak levels averaged 2.7 mg/L (range 2.2 to 3.2 mg/L). Milk levels were higher than serum levels and much higher than predicted at all times, indicating active transport into milk.. Nevertheless, an exclusively breastfed infant would receive a daily dosage of only 0.2 mg/kg or about 6% of the weight-adjusted maternal dosage.[5]

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

Effects in Breastfed Infants

Four newborn infants were allowed to breastfeed in one study after a maternal dose of 1 gram of methenamine hippurate. No adverse effects were reported.[1]

Six infants were allowed to nurse during maternal ingestion of the large daily dosage of 12 grams of mandelic acid. There was no clinical or laboratory evidence of harm to the infants.[2]

Effects on Lactation and Breastmilk

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

Alternate Drugs to Consider

Methenamine Hippurate

References

1. Allgen LG, Holmberg G, Persson B et al. Biological fate of methenamine in man. Acta Obstet Gynecol Scand. 1979;58:287-93. PubMed PMID: 484222.
2. Berger H. Excretion of mandelic acid in breast milk. Am J Dis Child. 1941;61:256-61.

Substance Identification

Substance Name

Methenamine Mandelate

CAS Registry Number

587-23-5

Drug Class

Breast Feeding

Lactation

Anti-Infective Agents, Urinary

Antibacterial Agents