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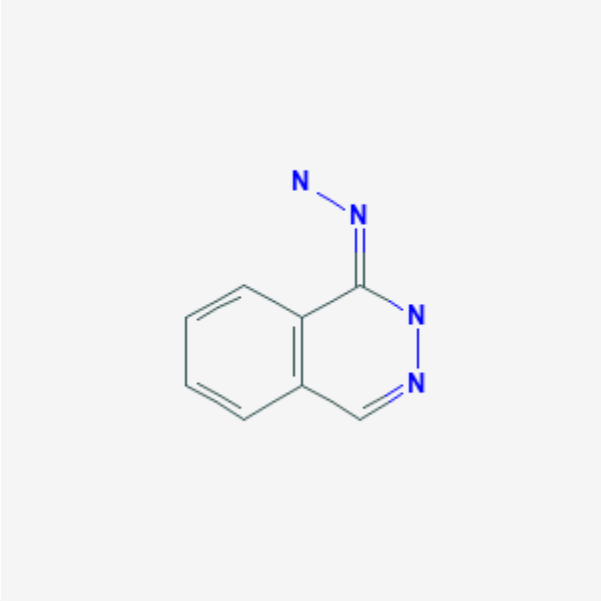
Hydralazine

Revised: October 31, 2018.

CASRN: 86-54-4



Drug Levels and Effects

Summary of Use during Lactation

Limited milk level and infant serum level data and a long history of use in postpartum mothers indicate that hydralazine is an acceptable antihypertensive in nursing mothers, even those nursing newborns.

Drug Levels

Maternal Levels. In one case report, a mother taking oral hydralazine 50 mg 3 times daily for at least 8 weeks postpartum had hydralazine milk levels of about 130 mcg/L at 0.5 and 2 hours after a dose. In addition, milk contained an amount of acid-labile hydrazones with undefined pharmacologic activity. The authors estimated that a breastfed infant would receive a maximum of 13 mcg per feeding at this maternal dosage.[1]

Ten lactating women had blood and breastmilk samples analyzed within 24 hour after receiving a dose of hydralazine of between 10 and 40 mg in the first week postpartum. The analytic method measured hydralazine plus its pharmacologically active acid-labile metabolites. The average concentration of drugs in breastmilk was 240 nmol/L, which was about half of the simultaneous concentration in maternal plasma. The authors estimated that the daily dose to a breastfed infant would likely not exceed 25 mcg.[2]

Infant Levels. Two infants were breastfed after their mothers had received a dose of hydralazine between 10 and 40 mg during the first week postpartum., At 2 hours after feeding, infant serum drug concentration were 557 and 293 nmol/L. The analytic method measured hydralazine plus its pharmacologically active acid-labile metabolites. These values were much lower than those found in a 2 kg infant who was receiving hydralazine 6 mg/kg daily directly for coarctation of the aorta. Serum levels in this infant were 6230 nmol/L before a 4 mg dose, and 8050 and 8310 nmol/L at 2 and 4 hours after the dose, respectively. Two other infants who received sterilized (100 degrees C for 10 minutes) breastmilk from their mothers who were taking hydralazine had no detectable hydralazine in their serum 2 hours after receiving the breastmilk feeding. The authors showed that expressed milk concentrations from 2 mothers were 140 nmol/L before heating and <20 nmol/L after heating.[2]

Effects in Breastfed Infants

No adverse effects reported in one infant breastfed for 8 weeks.[1]

Effects on Lactation and Breastmilk

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

Alternate Drugs to Consider

Enalapril, Hydrochlorothiazide, Methyldopa, Propranolol

References

1. Liedholm H, Wahlin-Boll E, Hanson A et al. Transplacental passage and breast milk concentration of hydralazine. Eur J Clin Pharmacol. 1982;21:417-9. PubMed PMID: 7200428.
2. Lamont RF, Elder MG. Transfer of hydralazine across the placenta and into breast milk. J Obstet Gynaecol. 1986;7:47-8.

Substance Identification

Substance Name

Hydralazine

CAS Registry Number

86-54-4

Drug Class

Breast Feeding

Lactation

Antihypertensive Agents

Vasodilator Agents