



Aflibercept

Revised: March 15, 2023.

CASRN: 862111-32-8

Drug Levels and Effects

Summary of Use during Lactation

This record refers to the use of intravitreal aflibercept. Aflibercept inhibits vascular endothelial growth factor (VEGF). Aflibercept is a large protein molecule with a molecular weight of 115,000, absorption is unlikely because it is probably partly destroyed in the infant's gastrointestinal tract and poorly absorbed orally, so systemic effects in infants are not expected. Aflibercept appeared in breastmilk in small amounts in only one of four days after intravitreal injection in one mother. Aflibercept is approved for intravitreal injection in preterm infants with retinopathy of prematurity. The risk to the nursing infant appears to be very low. Since VEGF is present in human milk and is thought to help in maturation of the infant's gastrointestinal tract, concern has been raised about the maternal use of VEGF inhibitors during breastfeeding.[1] However, the typical alternative to breastmilk is infant formula, which contains no VEGF.

Drug Levels

Maternal Levels. A woman with diabetic macular edema was given intravitreal aflibercept 2 mg one week postpartum. She was not breastfeeding her infant. Milk samples were obtained before the injection and on days 1 to 4 after the injection. Aflibercept was detected only on day 4 in a concentration of 10.9 mcg/L.[2]

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

Effects in Breastfed Infants

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

Effects on Lactation and Breastmilk

A woman with diabetic macular edema was given intravitreal aflibercept 2 mg one week postpartum. She was not breastfeeding her infant. Milk samples were obtained before the injection and on days 1 to 4 after the injection. VEGF levels were reduced from 10.6 mcg/L at baseline to 4.9 mcg/L on day 1, where it remained for the next 3 days.[2]

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Alternate Drugs to Consider

(Intravitreal) Bevacizumab, Ranibizumab

References

1. Dalal PJ, Patel AL, Carle M, et al. Review of ophthalmic and breastfeeding medicine evidence: Real and theoretical risks of intravitreal anti-VEGF administration in lactating women. *Retina*. 2020;40:2065–9. PubMed PMID: 32796446.
2. Juncal VR, Paracha Q, Bamakrid M, et al. Ranibizumab and aflibercept levels in breast milk after intravitreal injection. *Ophthalmology*. 2020;127:278–80. PubMed PMID: 31526521.

Substance Identification

Substance Name

Aflibercept

CAS Registry Number

862111-32-8

Drug Class

Breast Feeding

Lactation

Milk, Human

Angiogenesis Inhibitors

Recombinant Fusion Proteins