



Dupilumab

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CASRN: 1190264-60-8

Drug Levels and Effects

Summary of Use during Lactation

Evidence indicates that dupilumab is acceptable to use during breastfeeding. Because dupilumab is a large protein molecule with a molecular weight of about 147,000 Da, the amount in milk is likely to be very low.[1] It is also likely to be partially destroyed in the infant's gastrointestinal tract and absorption by the infant is probably minimal.[2] Expert opinion consider dupilumab acceptable during breastfeeding.[3,4] Waiting for at least 2 weeks postpartum to resume therapy may minimize transfer to the infant.[5] Until more data become available, dupilumab should be used with caution while nursing a newborn or preterm infant.

Drug Levels

Maternal Levels. A woman began receiving dupilumab 300 mg subcutaneously every 2 weeks starting 2.5 months after delivery. A milk sample 3 days after a dose had a dupilumab concentration of 1.1 mg/L, which was 1.3% of the simultaneous maternal plasma concentration.[6]

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

Effects in Breastfed Infants

A woman with atopic eczema received dupilumab subcutaneously in a dose of 300 mg every 2 weeks during pregnancy and postpartum. She breastfed her infant (extent not stated) for at least 4 months during which no complications were reported.[7,8] Seven months after delivery, she became pregnant again and continued dupilumab at the same dose throughout the pregnancy and lactation. No complications were seen during breastfeeding.[9]

Eight women with atopic dermatitis received dupilumab during pregnancy and breastfeeding. Two breastfed for 1 month, one for 7.2 months, one for 8.8 months, one for 10 months, one for 11.5 months, one for 14.5 months, and one for 16.1 months. None of the babies had developed atopic dermatitis at the time of publication and no adverse effects were reported.[10]

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A woman with atopic dermatitis received dupilumab (dose not stated) throughout pregnancy and during 8 months of lactation (extent not stated). No adverse effects in her infant were reported.[11]

A woman with long-standing atopic dermatitis began receiving dupilumab 300 mg every 2 weeks. When she became pregnant 24 months later, she stopped the drug, but had a disease flare in 2 weeks. The drug was restarted and she continued receiving it throughout the pregnancy and postpartum. She breastfed (extent and duration not stated) her infant. At 18 months of age, the infant had no complications.[12]

Effects on Lactation and Breastmilk

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

References

1. Stratigakis A, Paty D, Zou P, et al. A regression approach for assessing large molecular drug concentration in breast milk. *Reprod Breed* 2023;3:199-207. doi:10.1016/j.repbre.2023.10.003
2. Anderson PO. Monoclonal antibodies during breastfeeding. *Breastfeed Med* 2021;16:591-3. PubMed PMID: 33956488.
3. Middleton PG, Gade EJ, Aguilera C, et al. ERS/TSANZ Task Force Statement on the management of reproduction and pregnancy in women with airways diseases. *Eur Respir J* 2020;55:1901208. PubMed PMID: 31699837.
4. Deleuran M, Dézfoulian B, Elberling J, et al. Systemic anti-inflammatory treatment of atopic dermatitis during conception, pregnancy and breastfeeding: Interdisciplinary expert consensus in Northern Europe. *J Eur Acad Dermatol Venereol* 2024;38:31-41. PubMed PMID: 37818828.
5. Krysko KM, Dobson R, Alroughani R, et al. Family planning considerations in people with multiple sclerosis. *Lancet Neurol* 2023;22:350-66. PubMed PMID: 36931808.
6. Dekkers C, El Amrani M, van Luin M, et al. Limited excretion of dupilumab into breastmilk: A case report. *J Eur Acad Dermatol Venereol* 2023;37:e1154-e1155. PubMed PMID: 37143362.
7. Kage P, Simon JC, Treudler R. A case of atopic eczema treated safely with dupilumab during pregnancy and lactation. *J Eur Acad Dermatol Venereol* 2020;34:e256-e257. PubMed PMID: 31990389.
8. Treudler R, Kage P, Simon JC. A case of atopic eczema treated safely with dupilumab during pregnancy and lactation *Allergy* 2020;75 (Suppl. 109):432. doi:10.1111/all.14508
9. Kage P, Simon JC, Treudler R. Case of atopic eczema treated with dupilumab throughout conception, pregnancy, and lactation. *J Dermatol* 2021;48:E484-5. PubMed PMID: 34342905.
10. Escolà H, Figueras-Nart I, Bonfill-Orti M, et al. Dupilumab for atopic dermatitis during pregnancy and breastfeeding: Clinical experience in 13 patients. *J Eur Acad Dermatol Venereol* 2023;37:e1156-e1160. PubMed PMID: 37143399.
11. Alvarenga JM, Maria Lé A, Torres T. Dupilumab for atopic dermatitis during pregnancy and breastfeeding: A case report. *Actas Dermo-Sifiliograficas* 2023. PubMed PMID: 37858861.
12. Di Lerna V, Peccerillo F. Long-term follow-up of dupilumab treatment during conception, pregnancy and lactation. *Indian J Dermatol* 2024;69:193-5. doi:10.4103/ijd.ijd_447_23

Substance Identification

Substance Name

Dupilumab

CAS Registry Number

1190264-60-8

Drug Class

Breast Feeding

Lactation

Milk, Human

Biological Response Modifiers

Immunologic Adjuvants

Antibodies, Monoclonal