

Use of Favipiravir in Lactating Mother With COVID-19

Nalan Karabayır^{1,2}, Özlem Öçal Doğan³, Gülçin Canbeyli⁴

¹Department of Social Pediatrics, Istanbul Medipol University School of Medicine, İstanbul, Turkey

²Department of Pediatrics, Istanbul Medipol University International School of Medicine, İstanbul, Turkey

³Department of Pediatrics, Beylikduzu State Hospital, İstanbul, Turkey

⁴Department of Pediatrics, Istanbul Medipol University School of Medicine, İstanbul, Turkey

SARS-CoV-2 virus, which appeared in Wuhan, China in December 2019 and spread rapidly all over the world, affects children of all ages.^{1,2} During the COVID-19 pandemic, nursing mothers are worried about breastfeeding. Similar to CDC, the Turkish Ministry of Health and the Turkish Neonatal Society recommend that COVID-19 mothers breastfeed or express breast milk with necessary precaution.^{3,4} In 2 studies conducted with babies of COVID-19 mothers in our country, the rate of feeding with breast milk was found to be 43.2% in the first study, while it was 74% in the other study.^{5,6} One of the biggest concerns of breastfeeding mothers is that drug side effects may be seen in their babies. Various drug groups such as RNA polymerase inhibitors (favipiravir), HIV protease inhibitors, interferons, antibody treatments, and azithromycin are used in the treatment of COVID-19.⁷ In our country, there is no study about the passage of favipiravir, which is used as the first option in COVID-19 treatment, into breast milk. Sharing the experiences about the babies of mothers who continue to breastfeed while using favipiravir is important in preventing early weaning off breastfeeding.

A male baby aged 15 months came to our clinic with complaints such as runny nose, coughing, and mild fever. In physical examination, except for oropharyngeal hyperemia and fever over 38°C, the patient had no pathological findings. In laboratory investigation, hemogram and CRP levels were normal and paracetamol was prescribed. A day later, the mother had complaints such as fatigue, coughing, and fever, and the mother's PCR test was positive while the baby had tested negative. The mother was prescribed favipiravir, the first day with a dose of 2 × 1600 mg/g and from second to fifth day with a dose of 2 × 600 mg/g. Since the information about the use of favipiravir in breastfeeding mothers is limited, the mother was informed about the possible side effects of this drug, which is expected to pass into the milk, and the positive effects of breastfeeding. The mother was told that because half life of favipiravir is 2–5.5 hours, she could breastfeed just before taking the drug, she had to express milk between drug doses, and she could continue to breastfeed 12 hours after taking the last dose of favipiravir. The mother continued to breastfeed her baby 2 times a day while she was taking favipiravir. No symptoms were observed in the baby during drug use. After the mother's treatment was completed, no abnormalities were detected in the baby's hematological and biochemistry tests. The baby, who was followed for 6 months and was fed breast milk and complementary feeding, did not develop any symptoms.

Although no large-scale cohort or case-control studies have been conducted to evaluate the transmission of COVID-19 through breast milk, it has been reported that there is no transmission of SARS-CoV-2 from breast milk, and breastfeeding is safe when hygiene and contact isolation rules are followed.⁸ Although it is known that some drugs used in COVID-19 infection can be used in breastfeeding mothers, information on the use of favipiravir is limited. When making the decision to use drugs, first it should be evaluated how the drug to be used will affect the mother, the baby, and breast milk production.⁹ Favipiravir is a viral RNA polymerase inhibitor and was first used in the treatment of influenza.¹⁰ The most common side effects are elevated liver enzymes and urea acid levels.¹¹ When a breastfeeding mother

Corresponding author:

Nalan Karabayır

✉nkarabayir@medipol.edu.tr

Received: April 8, 2021

Accepted: July 11, 2021

Content of this journal is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.



Cite this article as: Karabayır N, Doğan Ocal O, Canbeyli G. Use of favipiravir in lactating mother with COVID-19. *Turk Arch Pediatr.* 2021; 56(5): 533–534.

needs to use favipiravir, it may be recommended to breastfeed her baby just before the drug doses are administered at 12-h intervals, express her milk between doses, and monitor the baby's biochemical values. The mother of our case preferred to continue breastfeeding while using favipiravir, and no problem was encountered in the baby.

As a result, while making decisions about mothers with COVID-19 breastfeeding their babies and drug use, it should be in cooperation with the healthcare team and the family. Increasing knowledge on the use of favipiravir will reduce the anxiety of breastfeeding mothers and prevent negative effects on breastfeeding.

Ethical Committee Approval: Ethical committee approval was received from the Ethics Committee of İstanbul Medipol University, (Approval No: 170/2021).

Informed Consent: Written informed consent was obtained from all participants who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - N.K., Ö.Ö.D.; Design - Ö.Ö.D.; Supervision - N.K., G.C.; Resource - N.K.; Data Collection - N.K.; Interpretation - N.K.; Literature Search - Ö.Ö.D., G.C.; Writing - Ö.Ö.D., G.C.; Critical Reviews - N.K.

Acknowledgments: We thank our patient's mother for allowing the case to be presented.

Conflict of Interest: The authors have no conflicts of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

REFERENCES

1. Zimmermann P, Curtis N. COVID-19 in children, pregnancy and neonates: a review of epidemiologic and clinical features. *Pediatr Infect Dis J*. 2020;39(6):469-477. [CrossRef]
2. Aygün D, Önal P, Apaydın G, Çokuğraş H. Coronavirus infections in childhood and vaccine studies. *Turk Arch Pediatr*. 2021;56(1):10-14. [CrossRef]
3. World Health Organisation. Breastfeeding and COVID-19. (Available at: https://www.who.int/docs/defaultsource/maternal-health/faqs-breastfeeding-and-covid-19.pdf?sfvrsn=d839e6c0_1) [CrossRef] Accessed April 2021.
4. Erdevi Ö, Çetinkaya M, Baş AY, et al. The Turkish Neonatal Society proposal for the management of COVID-19 in the neonatal intensive care unit. *Turk Pediatr Ars*. 2020;55(2):86-92. [CrossRef]
5. Onel MY, Akın IM, Kanburoglu MK, et al. A multicenter study on epidemiological and clinical characteristics of 125 newborns born to women infected with COVID-19 by Turkish Neonatal Society. *Eur J Pediatr*. 2021;180(3):733-742. [CrossRef]
6. Kanburoglu MK, Tayman C, Onel MY, et al. A multicentered study on epidemiologic and clinical characteristics of 37 neonates with community-acquired COVID-19. *Pediatr Infect Dis J*. 2020;39(10):e297-e302. [CrossRef]
7. Centers for Disease Control and Prevention. Clinical Care Information for COVID-19. (Available at: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html>) Accessed January 2021.
8. Wu Y, Liu C, Dong L, et al. Coronavirus disease 2019 among pregnant Chinese women: case series data on the safety of vaginal birth and breastfeeding. *BJOG*. 2020;127(9):1109-1115. [CrossRef]
9. Anderson PO. Drugs in lactation. *Pharm Res*. 2018;35(3):45. [CrossRef]
10. Anderson PO. Breastfeeding and respiratory antivirals: coronavirus and influenza. *Breastfeed Med*. 2020;15(3):128. [CrossRef]
11. Drugs and Lactation Database (LactMed). Bethesda (MD): National Library of Medicine (US); 2006. (Available at: <http://www.ncbi.nlm.nih.gov/books/NBK556878>), Accessed August 2020.