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## REPLY: Breastfeeding in Patients With Heart Failure



### Lack of Evidence and Consensus

We appreciate the response of Dr. Koenig and colleagues to our publication on breastfeeding in patients with peripartum cardiomyopathy (PPCM) in the Investigations of Pregnancy-Associated Cardiomyopathy (IPAC) study (1). They have highlighted important considerations in this patient population.

In response to concerns that “many mothers are inappropriately advised to discontinue breastfeeding or avoid taking essential medications because of fears of adverse effects on their infants,” the American Academy of Pediatrics published a comprehensive database, LactMed, and reported on medications within each heart failure drug class regarding significant adverse effects based on clinical studies and on drug concentrations found in breast milk (2). Specifically, there is evidence that supports the safety of several beta-blockers and angiotensin-converting enzyme inhibitors, including metoprolol and enalapril (3).

Regarding the difference in the proportion of patients who were breastfeeding in IPAC compared with the U.S. national average, women who were breastfeeding in IPAC represented a more compensated subset because 80% were New York Heart Association functional class I and II, and metabolic demands clearly limit the ability of women with more severe heart failure to breastfeed. A retrospective study of PPCM patients with a mean baseline left ventricular ejection fraction of 28% included 67% that reported breastfeeding and found no evidence that breastfeeding limited subsequent myocardial recovery (4).

Although our study did not investigate physician recommendations, in a recent study of patients with PPCM, 69% reported their physician had instructed them not to breastfeed (5). This may provide an alternative explanation behind the decreased proportion of patients in IPAC who reported breastfeeding.

Regarding heart transplant, ventricular assist device implantations, and death, the breastfeeding

cohort from IPAC experienced no events. As Dr. Koenig and colleagues pointed out, most of the complications occurred in patient with a baseline ejection fraction < 30%, and women who breastfed in IPAC tended to have a higher baseline ejection fraction.

Our study supports that in women with compensated heart failure, breastfeeding does not limit myocardial recovery. Physicians should not deter women who feel well enough to breastfeed based on any theoretical concerns about the safety of heart failure medications or subsequent impact on myocardial recovery. We agree that more studies are needed to elicit the potential impacts of breastfeeding on outcomes in PPCM patients with more symptomatic heart failure and worse baseline cardiac function.

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<https://doi.org/10.1016/j.jacbs.2019.10.001>

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Please note: The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

The authors attest they are in compliance with human studies committees and animal welfare regulations of the authors' institutions and Food and Drug Administration guidelines, including patient consent where appropriate. For more information, visit the *JACC: Basic to Translational Science* author instructions page.

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