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A case report of breastfeeding anaphylaxis: successful prophylaxis with oral antihistamines

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A thirty-four-year-old gravida 3 para 3 woman presented for the evaluation of recurrent cutaneous and systemic complaints associated with breastfeeding of her second and third children; there had been no problems breastfeeding her first-born. Medical history was significant for generalized urticaria with ingestion of shellfish as a teen; avoidance

was practiced. There was no history of asthma or other atopy. During the initial breastfeeding attempts with her second child, ocular pruritus and erythema were noted solely with breastfeeding. On postpartum day six, generalized flushing and urticaria were noted minutes after milk letdown. Use of diphenhydramine led to imperfect control of symptoms. As feeds continued, the urticarial flares worsened. Her most severe symptoms occurred at 4 weeks postpartum during use of an electric breast pump; rapid onset of generalized pruritus and urticaria, orofacial angioedema, hoarseness and bronchospasm were noted. She was treated with parenteral diphenhydramine, solumedrol and nebulized albuterol with resolution

of symptoms; serum tryptase was not obtained by emergency department staff. The patient subsequently ceased breastfeeding attempts. Two years later, a similar pattern of events occurred after the birth of her third child, with recurrence of conjunctival symptoms, flushing, urticaria, and angioedema linked temporally and exclusively with breastfeeding. There had been no interval symptoms of urticaria or angioedema.

A review of medications revealed the use of oxytocin during delivery, ibuprofen, docusate sodium, iron and multivitamins; all were stopped without cessation of symptoms. Evaluation for potential allergic or other aetiologies failed to identify the aetiology. Physical examination was normal. Total IgE was normal. A 50-antigen aeroallergen RAST (ImmunoCAP Pharmacia Diagnostics, Uppsala, Sweden) panel and a 4-antigen shellfish RAST panel were negative, as was prick testing for shrimp. Breastfeeding anaphylaxis (BFA) was diagnosed. As the patient refused avoidance, cetirizine 10 mg twice daily was initiated. As part of her ongoing workup, a baseline serum tryptase was desired, but she declined given complete control of symptoms on this new regimen. She continued breastfeeding without difficulty.

Breastfeeding anaphylaxis is characterized by symptoms ranging from urticaria to hypotension and syncope, by definition occurring in close relation to lactation; four cases have been previously reported (1–4). Although the aetiology of BFA remains unclear, temporal relation with lactation suggests hormonal influence. Waning levels of progesterone postpartum and loss of its mast-cell stabilizing effect has been an hypothesized mechanism; though, the roles of oxytocin, prolactin, adrenocorticotrophic hormone (ACTH),

corticotropin-releasing hormone (CRH) and increased numbers of antepartum mammary and uterine mast cells have also been questioned (1, 2). Negative skin testing using oxytocin (2, 3) and autologous breast milk (2) has been described. The prior cases share similarities with ours. As three of the cases involved aspirin or other nonsteroidal anti-inflammatory drugs (NSAIDs), pseudoallergic or allergic aetiologies had been considered (2–4). Our patient had only two doses of ibuprofen after delivery; her reactions continued for weeks after cessation, ruling out its contribution. Two of the prior patients also had a history of suspected shellfish allergy (3, 4), although neither had known recent ingestion of shellfish, and assessment for specific IgE was not described. Our patient had a distant history of urticaria with ingestion of shrimp and had practiced strict interval avoidance; skin and serum testing revealed no evidence of shellfish sensitivity. Oral challenge to shrimp was considered; our patient preferred continued avoidance. Similarity with prior cases also includes the recurrence of symptoms with subsequent pregnancies, seen in three of four patients (1–3) while the other was primiparous. This suggests that history of BFA is a risk factor for recurrence. Interestingly, all prior patients presented with initial symptom onset after the birth of their first children; our patient appears to be unique in that her first-born was breastfed uneventfully. Other unique aspects are a history of symptoms while using a breast pump and a successful prophylaxis with high-dose, second-generation antihistamines – failed prophylaxis using prednisone and standard dosing of cetirizine had been described previously (2).

In conclusion, we describe the fifth reported patient with BFA, with several

unique aspects. Such patients should be counselled by clinicians on the potential risks and benefits of continued breast-feeding. Clearly, more investigation is needed regarding the mechanisms behind this rarely reported phenomenon.

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