Rare disease

Breast milk: friend or foe?

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Anaphylaxis can occur secondary to breastfeeding. The authors present a case of a 30-year-old woman who complained of chest tightness, shortness of breath and a rash on the third day postpartum. She was treated for anaphylaxis and her symptoms resolved. Because she had taken tramadol prior to this event, a drug reaction was initially suspected. However, she experienced further episodes related to breastfeeding, despite stopping tramadol. Effective control of her symptoms was achieved with regular antihistamines, enabling her to continue breastfeeding. Antihistamines were interrupted after 8 weeks at which point lactation (in hospital) was once again associated with anaphylaxis. The diagnosis of breastfeeding induced anaphylaxis was made. There are six previously reported cases of breastfeeding induced anaphylaxis. The authors describe the second case of breastfeeding anaphylaxis extending beyond the neonatal period, controlled with antihistamines.

BACKGROUND

Anaphylaxis secondary to breastfeeding is rare but potentially fatal. This case is presented to raise awareness and facilitate prompt diagnosis. It illustrates how breastfeeding induced anaphylaxis can be managed successfully.

CASE PRESENTATION

A 30-year-old primiparous woman underwent an uncomplicated caesarean section at 38 weeks gestation for a breech presentation following an uneventful pregnancy. Her only significant medical history was hay fever and a previous reaction to ibuprofen ingestion. For this reason, non-steroidal anti-inflammatory drugs (NSAIDs) were avoided post operatively.

On postpartum day 3 following breastfeeding, she complained of shortness of breath and developed a widespread urticarial rash. She was tachypnoeic, her oxygen saturation level was reduced to 88% on room air and auscultation of her chest revealed a scattered wheeze. Her blood pressure (BP) was 120/75 mm Hg. She was treated for anaphylaxis with oral antihistamines, prednisolone and a salbutamol nebuliser and the symptoms resolved over the following hour.

Four hours later she suffered a further, more severe episode during which she was hypotensive, with a BP of 90/70 mm Hg and she developed facial swelling. As the first episode followed the ingestion of tramadol, a drug reaction was suspected. After further episodes unrelated to medication the diagnosis of breastfeeding induced anaphylaxis was made.

INVESTIGATIONS

Mast cell tryptase, a marker of mast cell degranulation, remained within normal limits during an attack. Skin prick testing was positive for grass but negative with human milk.

DIFFERENTIAL DIAGNOSIS

A drug reaction.

TREATMENT

The patient was keen to carry on breastfeeding and so we advised her to take regular chlorphenamine 4 mg every 4 h. She was also trained in the use of an epinephrine self-injection device.

OUTCOME AND FOLLOW-UP

Over the next 8 weeks, the patient had a single mild episode of anaphylaxis (related to breastfeeding) that required her to seek medical advice. She attributed this to a delay in feeding the baby as she had previously correlated more severe episodes with increased breast engorgement. After this episode, with the recommended treatment regimen she was able to continue breastfeeding without any further problems.

At 8 weeks postnatal, she attended the outpatient department for a lactation challenge. She had abstained from taking antihistamines and breastfeeding for the preceding 16 h. While the patient was preparing for feeding, the sound of the baby crying stimulated the milk ejection reflex. Within minutes, the patient developed an audible wheeze and widespread urticaria. Her peak expiratory flow rate fell from 330 to 190 L/min and her BP fell from 142/78 to 104/76 mm Hg. She required intravenous hydrocortisone, antihistamine and intravenous fluids. This confirmed the diagnosis of breastfeeding induced anaphylaxis.

DISCUSSION

Anaphylaxis is potentially life-threatening. Fortunately, its occurrence secondary to breastfeeding is rare; six cases have previously been reported.^{1–6} In common with all the previously reported cases our patient first had anaphylaxis associated with breastfeeding on day 3 postpartum.

Lactogenesis is usually established on postpartum days 2 to 3 secondary to the abrupt withdrawal of progesterone at parturition. This correlates well with the onset of symptoms and suggests hormonal influence. The withdrawal of the stabilising effect of progesterone on mast cells has been suggested.⁴ Other hormones that may have a role include prolactin, oxytocin, adrenocorticotrophic hormone and corticotropin-releasing hormone.^{3 4} Murine mast cells have been shown to express oxytocin receptors.⁷

Sensitivity reactions have also been considered after three of the previous cases coincided with the ingestion of a NSAID.^{1 2 4} Our patient was sensitive to NSAIDs, which were avoided, therefore excluding it as a mechanism in our case.

Breastfeeding induced anaphylaxis appears to be a recurring event.²⁻⁴ However, one case reported no symptoms with the first child but developed anaphylaxis associated with breastfeeding with her second and third child.⁵ Skin prick testing to breast milk has been negative in previous reports⁴ and in our patient. IgE mediated allergy is thus unlikely.

Our case is the seventh reported patient with breastfeeding induced anaphylaxis. The hormonal fluctuations associated with parturition and the milk-let down reflex are likely to play a role, however, further research is required to understand the pathogenesis of this rare phenomenon.

We have demonstrated that anaphylactic symptoms secondary to breastfeeding can be controlled with a regimen of regular chlorphenamine, regularly breastfeeding the baby and avoidance of NSAIDs and opiates.

Learning points

- ▶ Anaphylaxis secondary to breastfeeding can occur.
- ▶ Recommended management: regular chlorphenamine, regular feeding of the baby and avoidance of opiates and NSAIDs.
- ▶ Mothers with a desire to breastfeed can continue with appropriate treatment and education.

Competing interests None.

Patient consent Obtained.

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