a systemic disorder rather than allergy, for example connective tissue disease or systemic mastocytosis. A very detailed timeline of clinically significant events and their relationship to food allergens and co-factors is required to reach the correct diagnosis.

Having made a clinical diagnosis of food-dependent exercise-induced anaphylaxis, the next steps are to delineate a specific allergen in the history and test for allergen-specific immunoglobulin E, using a combination of skin prick testing and serology. This patient demonstrated sensitization to the wheat allergen omega-5-gliadin, which is strongly predictive of wheat-dependent exercise-induced anaphylaxis. However, this test is only 80% sensitive, and immunoglobulin E to native wheat extract only 40% sensitive. Some centres have proposed further investigation by a food-exercise challenge test, seeking to reproduce the symptoms in a controlled environment – however, there is no validated protocol for this procedure.

The mainstays of management are the avoidance of culprit foods with associated co-factors, together with the provision of adrenaline autoinjector devices and training. The latter is particularly important as some residual risk will remain unless the culprit food allergen is completely avoided, which would be unduly restrictive. The required time interval between food intake and co-factor exposure has been identified as 4 hours (Feldweg, 2015), but in reality the interval is variable and personalization is required.

Conclusions

Food-dependent exercise-induced anaphylaxis is a rare disorder of growing global prominence. Awareness of this in the secondary care setting is necessary to facilitate prompt and accurate case detection and to provide appropriate ongoing care. **BJHM**

LEARNING POINTS

- Food-dependent exercise-induced anaphylaxis should be considered in a patient presenting with anaphylaxis following exercise.
- A careful clinical history is the most reliable method to recognize food-dependent exercise-induced anaphylaxis.
- The diagnosis requires confirmation in a dedicated allergy clinic, supported by skin prick testing and immunoglobulin E serology, to identify the culprit allergen.
- The main principles of management include identification and avoidance of culprit allergens and potential co-factors, and patient education and the provision of adrenaline autoinjector devices with training.

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Hamman syndrome

Hamman syndrome has a recognized occurrence in labour, describing spontaneous subcutaneous emphysema with pneumomediastinum. The incidence is between 1 in 2000 and 100 000 labours (Jayran-Nejad, 1993).

A 29-year-old primip had a healthy term vaginal delivery with assistance from Kiwi ventouse and episiotomy. The pregnancy was unremarkable except for an earlier episode of mumps.

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Two hours after delivery the patient's partner noticed that her cheeks were swollen and palpation confirmed subcutaneous emphysema. She was otherwise asymptomatic with normal chest examination. Chest radiograph (*Figure 1*) confirmed subcutaneous emphysema in the supraclavicular fossae but no evidence of pneumothorax or pneumomediastinum.

The swelling subsided and she was discharged the next day. While distressing, the patient can be reassured of a positive prognosis, usually resolving within a couple of weeks (Seidl and Brotsman, 1994). Concerns centre around the use of Entonox and intermittent positive pressure ventilation. **BJHM**

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Figure 1. Chest radiograph showing supraclavicular subcutaneous emphysema.