Scenarios for GP Trainees/CME Small Groups
Food Allergy

Case 1

Your first patient this morning is John, a 7 month old infant brought in by his mother. He had previously been seen with blood PR in the first 2 months of life. At the time, a change of formula from cow's milk based to extensively hydrolysed was prescribed with immediate resolution of symptoms.

Mum explains that she is very worried about possible food allergies.

She reports a strong family history of allergy: her uncle has anaphylaxis to nuts and bees and her own mother has penicillin allergy.

She is reluctant to wean John to solids without allergy testing and wishes his clinic notes to reflect a possible penicillin allergy. She is also seeking guidance regarding how long he should remain on his extensively hydrolysed formula.

On examination: the infant appears healthy. Weight and length are appropriate. Skin is clear and soft all over. There are no remarkable findings.

Discussion Points

What was the initial diagnosis?

The history is consistent with cow's milk protein driven proctocolitis, a form of Non IgE mediated milk allergy that often resolves within the first year of life. It is not a risk factor for the development of IgE mediated food allergy.

Use of the milk ladder in this case

The milk ladder is perfect for this type of case. There is no risk attached as the infant's initial symptoms were not immediate (i.e. they were Non IgE type) and the infant has no eczema. Mum should be encouraged to progress on the ladder at whatever speed suits her- no strict rules. If the infant develops symptoms she can always check back in with you.

Risk factors for IgE mediated food allergy

Eczema is the primary risk factor for the development of food allergy with early onset eczema (less than 6 months) and increased severity of eczema increasing the risk. Delay in the introduction of allergens into the infant's diet (especially those with eczema) is also a risk factor for the development of food allergy. The presence of siblings with a food allergy is no longer considered a major risk factor. The uncle's history is not relevant but has caused Mum concern and thus must be addressed and reassurance provided.

Appropriate use of allergy tests

Allergy tests are not good screening tools. This infant, with no eczema, does not need any allergy tests. There is a risk of false positives which will merely delay the introduction of allergens and cause increased anxiety. This is sometimes a challenging conversation to have.

Screening for antibiotic allergy and venom allergy

It cannot be done; yet. Penicillin allergy in children is not very common. 90% of all antibiotic allergies are de-labelled by a formal challenge. Similarly in adults

If in fact, John's grandmother's history of antibiotic allergy is "real" it still does not increase this infant's risk of drug allergy. Under no circumstances should this infant avoid penicillin if indicated clinically.

Venom allergy tests are ONLY indicated if venom desensitisation is being considered. They are poor screening tests and should never be ordered outside of an allergy clinic. Venom allergy does not carry a genetic risk. Eczema and food allergy are not risk factors for developing venom allergy. Beekeeping is a risk factor for developing venom allergy.

Explore the maternal concerns around allergy

Some of this is discussed above. It is important to understand what parents have been told before, to work through any misinformation.

Screen for underlying maternal anxiety or other mental health issues.

Create management plan for infant

1. Wean to all foods with egg and nut as a priority
2. Then start milk ladder

Role play how to reassure mother by addressing her concerns through explanation.

Case 2

Your next patient is Mary, a 5 month old baby, whose mother feels had an allergic reaction to egg.

Mum brings her 5 month old baby Mary to the GP surgery. To date, she has only been seen routinely for her 2 and 6 week checks, and routine vaccinations which are up to date.

She was breastfed from birth, and switched to cow's milk based formula around 4 months of age. She tolerated cow's milk based formula well. Mum had started introducing solid foods in the past week. She started with simple vegetable and fruit purees. She gave the infant her first taste of lightly scrambled eggs that morning. The infant spat it out, and within 3 minutes mum noted an extensive erythematous rash around her mouth and chin and extending onto her chest, with one area that looked like hives (she has a photo on her phone which is consistent with Mum's description). She had one small vomit at that time. She had no lip or facial swelling, no tongue swelling, and no airway compromise/wheeze/no pallor or floppiness. She remained well and the rash slowly resolved over the following few hours. On examination the infant appears very healthy, weight and length are on appropriate centiles. Her skin shows evidence of mild eczema.

Mum explains that she is very worried about her having a serious allergic reaction if she encounters egg again- she wants her to have an allergy test and to know how to avoid all egg.

Mum has heard there is egg in the MMR vaccine and wants to plan to get this arranged to be done in hospital in 12 months- she recalls a friend doing this with her son.

She is now nervous about other food allergies- and wonders are there other foods she should avoid, just in case.

Discussion points

What was the initial diagnosis?

The history is consistent with IgE mediated (immediate) egg allergy. The symptoms were mild.

Does she require allergy testing to egg- or any other allergens?

In this case, you can make the diagnosis of egg allergy based on history alone- the story was clear, and therefore there is no need to perform a test. You do not advise allergy testing in primary care for other allergens that she has not yet tried- these would be screening allergy test which are the remit of specialists in certain circumstances.

Should she avoid all egg?

No. The majority of infants who react to lightly cooked egg will tolerate baked egg. She should start her on the IFAN Egg ladder at home- this will aid in her developing tolerance to egg, and most infants with egg allergy will ultimately develop tolerance to all egg. Oral antihistamine can be advised to manage minor reactions that may occur as she moves up the ladder. Mum can be reassured that, given her presentation, following the Egg Ladder is safe.

Should she avoid any other foods such as peanut?

No! The opposite is true. The clinical diagnosis of egg allergy puts her in an at risk-group for peanut allergy- therefore she should have peanut introduced as soon as possible in her weaning diet (in a safe smooth form) with the aim of preventing peanut allergy, and then should continue to be given it regularly, at least a heaped teaspoonful, at least 3 times a week. Early introduction has been proven to be an effective way to prevent peanut allergy. If peanut is avoided, the risk of peanut allergy developing increases the longer it is avoided. Tree nuts and other common allergens (pulses, seeds, fish etc) should also be introduced without any need to delay in her infant diet, one new allergen at a time.

Given that the reaction was mild, and the GP can advise initiation of the IFAN Egg Ladder at home, is there any need to refer or can she be managed exclusively in primary care?

She should be referred. All infants diagnosed with egg allergy in primary care, even if mild-moderate and starting on the Egg Ladder, should be referred to a specialist (allergist or paediatrician with an interest in allergy). These infants are at high risk of other food allergies and at the present time, all warrant assessment by a specialist to ensure allergy prevention aims are being met.

Are special precautions required regarding her MMR vaccine?

No. The MMR vaccine does not contain egg and can be given in the normal manner in the community (see HSE immunisation guidelines for advice on flu vaccine and yellow fever vaccine in egg-allergic children - some precautions do apply for these in certain cases).

Create management plan for infant

1. Advise parents to start her on the IFAN Egg Ladder at home-progress up it as tolerated. Use oral antihistamines if needed for mild reactions.
2. Refer her to a specialist (allergist or paediatrician with a special interest)
3. Introduce peanut (in smooth pure form) as soon as possible with the aim of preventing peanut allergy. Once tolerated, continue to give it regularly 3 times a week.
4. Continue to introduce other common allergens without any need to delay, one at a time.
5. Optimise her skin condition (she has mild eczema) with liberal emollient use, soap avoidance and topical steroids as needed.