PEANUT CHALLENGE GUIDELINES

These are guidelines only, and it will be at the clinician’s discretion to apply different treatment depending on individual circumstances of patient.

In the last decade incidences of allergies has increased in children, particularly nut allergy.

Recent evidence suggests that 10 to 20% children may grow out of peanut allergy. (1)

Selection for peanut challenge:

Appropriate age when the challenge can be carried out should be at least four years and minimum interval should be two years after the last allergic episode.

Group 1 : Previous severe anaphylaxis - Arrange IgE and RAST test followed by skin prick test (skin test using Soluprick, ALK from Sweden has positive predictive value of 100%) If skin test shows wheal more than 6 mm, DO NOT perform the challenge. If skin tests shows wheal less than 6 mm, advise parents against the challenge and reconsider after further asymptomatic period.

Group 2 : Previous mild or moderate reactions - Arrange IgE and RAST test followed by skin prick test. If skin test shows wheal more than 6 mm DO NOT perform the challenge. If skin test shows wheal less than 6 mm peanut challenge can be performed.

* All children to be admitted as day case.

* Parents to be given information sheet.

* Make sure prior to starting the challenge that antihistaminics chlorpheniramine (Piriton), Terfenadine (Triludan), Promethazine (Phenergan) and Trimeprazine (Vallergan) have been stopped 48 hours prior.

Ketotifen and Cetirizine (Zirtek) should be stopped one week before the challenge.

* SHO must check the child. Include

  Severity and frequency of allergic episode
  Family history
  Associated atopy
  Baseline observations : T P R, BP and Wt. Peak flow if appropriate age.

Prescribe on drug chart and prepare in the syringe:
Adrenaline 0.01 ml/kg (1:1000) IM (Max 0.5 ml)
Chlorpheniramine 0.2 mg/kg/dose
* AMETOP! Insert I.V canula!

* Wear gloves while handling test food to avoid previous hand contact with peanut which may trigger allergic reaction in the child accidentally.

**Procedure**

- Explain to parents and child
  - First rub small amount of peanut butter or cut surface of peanut on the skin of forearm.
  - If no reaction, rub peanut butter or cut surface of peanut on inside of bottom lip.
  - If no reaction, continue further with 15 minutes of observation at each step.
  - Give 1/4 tsp peanut butter on bread or 1/2 peanut (use nuts if older than 5 years)
  - Give 1/2 tsp peanut butter on bread or one peanut
  - Give one tsp peanut butter on bread or 2 peanuts
  - Give 2 tsp peanut butter on bread or 4 peanuts
  - Give 3 tsp peanut butter on bread or 8 peanuts

* Document "no reaction" after each step

**Watch for reactions:**

- Local erythema and swelling
- Generalised urticaria
- Diarrhoea and vomiting
- Generalised angio-oedema of face
- Stridor, wheeze or acute breathing difficulty
- Anaphylaxis

* If any reaction occurs throughout the challenge, stop immediately and inform the doctor.

- Assess the severity of the reaction
- Assess "ABC"
- IM adrenaline if generalised angio-oedema of face or stridor, wheeze or breathing difficulty.
- If anaphylaxis - give high flow oxygen (15 LPM)
- Adrenaline 0.01 ml/kg of 1:1000 im (Max 0.5 ml)
- Adrenaline may need repeating within 5 minutes if no response
- Chlorpheniramine 0.2 mg/kg iv/im
- Hydrocortisone 4 mg/kg iv
- Consider CRASH CALL if Paediatric Registrar not present
In the event of reaction give parents further information, provide EPIPEN if not already prescribed, inform Sue Donald (Bleep 135), involve Dietician and arrange outpatients

* Child should stay for four hours after the challenge is complete irrespective of the result

* On discharge advise to avoid vigorous physical exercise and activities to prevent possibility of delayed reaction

* If child has never been exposed to peanuts before he will need second peanut challenge a month after the first!

* Negative peanut challenge DOES NOT exclude possibility of reaction to other nuts.

* Keep in mind the limitations of the test!

* Arrange outpatients appointment.

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