Top Tips in Two Minutes: Cow's milk protein (CMP) allergy in infants

Why:	Commonly suspected by parents of crying, sleepless, vomiting, constipated, eczematous etc infants (age less than 12 months). Probably over diagnosed (prevalence 2-3%) but on the other hand the most common and probably only allergy in the first months of life. Widespread confusion even amongst health professionals when diagnosing colic, CMP allergy or lactose intolerance. Of huge benefit to babies and families if diagnosed appropriately but comes with a cost attached
How: -	**Clues in the history:** Sometimes symptomatic in the neonatal period: fresh blood/mucous in the stool can be suggestive of colitis even in breast fed infants. Beyond the neonatal period infants can present with any of the following: • Vomiting/severe gastro-oesophageal reflux • Feeding refusal and drawn out feeding, often for more than an hour per bottle/breastfeed • Discomfort on feeding (back arching, crying) • Stool changes: constipation, diarrhoea, blood (rare), mucous (rare) • Atopic family background (parents, siblings with CMP allergy but beware self fulfilling prophecy) • Faltering growth (drop of more than two centile lines not in keeping with 'catch down' growth) • Eczema: tricky! Often implied in severe cases where normal eczema therapy does not help • Wheeze, cough, rhinitis From a few months of age infants may contract viral gastroenteritis and subsequently develop (osmotic) diarrhoea due to transient lactose intolerance. Transient lactose intolerance does not cause vomiting and responds to a few weeks of lactose exclusion (over the counter formulas, e.g. SMA lacto free®). The impact of lactose exclusion is immediate.
What next and when :	**Investigations** • Thorough physical examination to exclude any other underlying health issue. • Blood, stool and urine tests are not helpful. • There is no role for allergy testing unless the clinical history suggest an IgE mediated process/anaphylaxis (those infants will be very few and far between). • The vast majority of CMP allergy is non-Ig E mediated. **Management:** • Trial of an extensively hydrolysed formula if bottle fed (eg Nutramigen Lipil®). If on breast milk, an amino acid based formula should be the first choice (eg Puramino®, Neocate®). • **Important:** Re-challenge with normal feeds after two weeks, especially if no significant improvement (if it is CMP allergy, most parents will tell you they had a 'different baby' within 24 hours). • Soy milk not advised before 6 months of age. There is a risk of allergy to this also in 20 – 30% but can be a cheaper, over the counter alternative if tolerated. • Refer to paediatric dietitian (community) to support weaning at 6 months • Supplement maternal Ca intake if breastfeeding (prescription of 1000 mg Ca Sandoz® per day) • If continued on special formula re-challenge every 3 to 6 months with CMP containing feeds (under the auspices of a dietitian if necessary) as most babies will outgrow their problem during the first 2 years of life. • Warn parents of foul taste/smell of hydrolysed formulas and green stools (the babies luckily will not mind that) **Referral**: • Unclear diagnosis • Above intervention unsuccessful • Parents reluctant to switch to normal feeds despite lack of improvement
Where else	Referrals should be sent to Peter Heinz/Paediatric Rapid referral Clinic
References:	Diagnostic Approach and Management of Cow's-Milk Protein Allergy in Infants and Children: ESPGHAN GI Committee Practical Guidelines - J Pediatr Gastroenterol Nutr. 2012; 55(2): 221-9
Web link	http://www.espghan.org/fileadmin/user_upload/guidelines_pdf/Diagnostic_Approach_and_Management_of_Cow_s_Milk.28.pdf
Who are you	Peter Heinz , Consultant Paediatrician Ahmed Khan (GPVTS), Natalie Fee (GPVTS)
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