Surviving the first year: common challenges faced by new parents

In the second instalment of his article **Alf Nicholson** discusses how to manage excessive crying, colic and food refusal in infants

WHILE it is often difficult to determine when an infant should be considered to have colic, the most widely used definition is that proposed by Wessel and colleagues and which is known as the 'rule of threes'. An infant should be considered to have colic if he/she cries for more than three hours per day, for more than three days per week, for three weeks. However this definition has its limitations in that the actual duration of crying may be difficult to quantify and very few parents are prepared to wait three weeks until an official announcement proclaiming that their infant has colic is made!

It is important to note that most cases of colic cannot be accounted for by pre-existing maternal personality characteristics, postnatal depression or non-optimal caregiving. Due to inexperience, first-time mothers may bring their crying infants to medical attention more often but there is no difference in the amount of crying in first-born and later-born infants.

Thus, most cases of colic are unlikely to be due to problems in either the mother or infant. Differences in caregiving (such as the amount of contact , the frequency and type of feeding) may modify both the duration and pattern of crying.

Treatable conditions that can underlie excessive infant crying

Infection

Always enquire regarding a history of recent fever as the presence of fever in an under three-month-old may indicate the possibility of a serious bacterial infection (urinary tract infection, septicaemia or meningitis).

Feeding issues

There is an important link between feeding problems and excessive crying. Refusal to feed and excessive crying are not related to gastro-oesophageal reflux (GOR). Difficulties with breastfeeding, such as problems of attachment or positioning, may put susceptible infants at risk of increased crying and aversive feeding behaviours. Functional lactose overload occurs when the breastfeeds do not contain enough fat, resulting in rapid milk transit through the intestine. Undigested lactose ferments in the colon with resulting explosive or frothy stools, excessive crying and a desire to feed very often.

Cow's milk protein allergy (CMP)

Some infants with excessive crying have CMP allergy. Pointers towards CMP allergy as a cause of excessive crying include those infants with 'high-pitched' crying, infants who regularly arch their backs during crying bouts, and when the crying pattern does not fit a pattern of evening clustering.

A late onset of increased crying in the third month of life or following a switch from breast to formula milk may implicate CMP allergy.

Management in a primary care setting

It is important to take the problem seriously and to ensure that feeding is adequate and appropriate for the infant. A detailed examination of the infant should be carried out.

Most breastfed infants in the first few weeks to months of life need eight to 12 feeds a day, with at least one breastfeed between midnight and 6am. Babies may seek cluster feeds whereby they take to the breast every 30-60 minutes for a period, most commonly in the evening. It is advisable for mothers of crying infants to respond in a relaxed manner to pre-cry cues with an offer of a breastfeed before the baby becomes even more distressed and difficult to soothe. This is an exhausting schedule for even the most committed mother however. Cue-based care from birth, combined with an average of 10 hours of physical contact (whether awake , feeding or sleeping) in a 24-hour period is associated with 50% less crying in early infancy

Spend time reassuring and explaining the problem to parents and do not be afraid to consider admission to hospital if necessary to alleviate a very stressful situation at home.

There is a group of infants with colic that are classified as 'Wessel's plus' and these infants fulfil Wessel's criteria for colic but also have other cues that cause concern: These infants tend to display clenched fists, flexed legs, back arching, distended abdomens, regurgitation with crying and a pained face when crying. In this 'Wessel's plus' group (especially if associated diarrhoea and/or vomiting) , a trial of elimination of cow's milk protein (either from the mother's diet if breastfeeding or from the infant's diet) by changing to a CMP-free formula (Aptamil Pepti or Nutramigen) may be indicated.

Ten-step guide for managing colic in primary care

Crying and fussing do reduce significantly after three months of age and this relates to the maturing central nervous system of the infant and coincides with a changing role for the cry signal – from expressive crying to communicative crying. Therefore, the most important aspect of the management of colic is to reduce psychological pressure on the caregivers, especially the mother. This is best achieved by using the following principles:

- Acknowledge reality of the parents' concern
- Take a thorough history (including perinatal and feeding history) and perform a thorough physical examination of the infant
- Encourage parents to experiment with relaxed cue-based care, sleeping in the same room as the infant, with increased physical contact (including skin-to-skin contact)
- Dietary management: Ensure correct breastfeeding technique, trial of probiotics (*Lactobacillus reuteri*) for 10 days and then a trial of maternal dairy-free diet for two weeks. If formula-fed,

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ensure correct feeding technique and winding and, if parents are at their wits end, trial of extensively hydrolysed formula for two weeks
- Assess support levels for the mother and see that these those involved (eg. grandparents) are educated on the best way to handle crying
- Ask the mother to keep a diary of crying
- Ask your practice nurse or public health nurse to support the family and regularly weigh the infant
- Arrange for regular respite periods for the mother, if possible
- In severe cases, especially if the increased crying is occurring in the context of a fragile or otherwise challenged family, refer for a paediatric opinion and perhaps consider admission to take the heat out of the situation.

Studies point to excessive crying being a condition of excess crying in the first three months in normal infants. All young infants display crying that peaks at four to six weeks of age. As health professionals, one should firstly never ignore or downplay parental concern regarding colic, and an infant with excessive crying should be regularly monitored.

Drug therapy is ineffective and dietary changes are rarely indicated.

Resources for parents

- **www.purplecrying.info**: Informs parents about infant crying behaviour and advice given in both text and video
- **www.zerothree.org**: Includes an interactive baby map, a podcast about infant crying and a number of relevant articles pertaining to excessive crying
- **www.mothersmatter.co.nz**: Provides information for families about post-natal depression, managing infant crying and coping with negative feelings towards a new baby.

Constipation in infancy

Stool frequency and consistency varies enormously in early infancy. In breastfed infants, stools are often runny, mustard to orange in colour with white flecks and occur after every feed. Formula-fed infants have stools that are passed from one to three times per day to once every two to three days. These stools are greyish green in colour depending on the type of formula used.

Constipated stools are firm, dry or pellet like in consistency and cause significant distress to the infant.

The main causes of constipation in infancy are inadequate fluid intake (the most common by far), incorrect feed preparation, frequent formula changes and, most rarely, cow's milk protein allergy.

Management of simple constipation

- Ensure adequate formula intake
- Offer 30-60ml of cooled boiled water once or twice per day between feeds
- From two months of age, offer 30-60ml of dilute apple or pear juice (15ml juice and 45ml water) twice per day
- If no response, start 5-10ml of lactulose daily if constipation is severe and fails to respond to dietary measures
- Avoid use of suppositories if possible.

Food refusal

Many parents have the most robust children, whom they claim just will not eat. If the child is healthy, is growing normally and full of energy, there is probably little to worry about.

When taking a history, enquire as to who feeds the child, how often are they fed and if they are fed liquids or solids. Identify where the child is fed and enquire about the texture of solids offered to the child. One needs to sensitively enquire about the nutritional beliefs of the parents, unconventional feeding practices and as to whether there may be issues of control.

In assessment, one takes a feeding history, seeking information in relation to the child's behaviour and the presence of stress signals during feeding. The child as an infant may have had abnormal tactile experiences such as prolonged ventilation, prolonged nasogastric feeding or the placement of a gastrostomy tube. If the infant had neurological impairment, oral feeding may have been delayed.

One should assess the infant or child's ability to co-ordinate sucking, swallowing and breathing. The parental reaction needs to be addressed as many parents whose children food refuse have high anxiety and develop low self esteem.

Persistent and severe feeding problems are evident in about 5% of children and the vast majority of these have a behavioural component to their food refusal. In severe cases, referral to a specialised feeding clinic is indicated. This would incorporate the expertise of a dietitian, clinical psychologist, social worker and paediatrician.

Some tips to help parents of children with food refusal include:

- It is not strictly necessary for children to have three formal meals a day as they can achieve an adequate intake by 'grazing' on healthy snacks and drinks
- Healthy snacks include sandwiches, cheese, milk and fruit
- Bread, cereal and pasta are foods that most children enjoy. When these foods are accepted they provide a good foundation to a child's diet
- Aim for a wide varied choice of food but, if this is refused, accept a healthy boring diet
- Many children will not eat vegetables but if fruit is taken this is an adequate substitute
- Children who do not accept fruit and vegetables can manage with fruit juice and the foundation foods
- Children who drink a large volume of doorstep milk may not feel hungry for solid foods. In this situation, halve the amount of milk taken and the child will usually start to take other foods again
- Children who do not drink milk will get adequate calcium in their diet by eating cheese, yoghurt and other dairy products
- When a parent is concerned in relation to food intake in their child, add up all the drinks and snacks taken in one day. Often they will be pleasantly surprised
- Meat may be refused when offered in pieces or chunks. Chicken, sausages, ham, corned beef and minced beef presented in a Bolognese sauce with spaghetti may be more acceptable to the child
- In general terms, vitamin tonics and supplements do not improve the reluctant feeder's diet
- If a child is not gaining weight, then a medical and dietetic assessment is indicated
- Children should never be forced to take food. Food forcing is in itself a cause of food refusal and it simply will not work.

Alf Nicholson is a professor of paediatrics at the Children's University Hospital Temple Street, Dublin