Infant Dyschezia and Functional Constipation

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Infant dyschezia and functional constipation are two distinct functional disorders. They can be distinguished by history and require different management.

Paul is presented to the paediatrician by his mother at the age of 2.5 months because the parents are very worried about his defecation behaviour: three times a day Paul is straining very hard and crying for at least 10 to 15 minutes until he finally passes stool. Paul is exclusively breastfed and thriving well.

Is Paul suffering from an early manifestation of constipation? Does he need any medication or even a work-up to exclude Hirschsprung’s disease? No, Paul has the typical history of an infant with dyschezia. The mother denies that the stool has been hard at any time.

According to the Rome III criteria for functional gastrointestinal disorders infant dyschezia is defined as straining and crying for at least 10 minutes before the successful passage of a soft stool in an infant younger than 6 months of age [1]. Both parents and physicians commonly misinterpret dyschezia as constipation. Hyman et al. reviewed the hospital charts of infants below 12 months of age with the main complaint of constipation. They identified 57 infants, of whom 20 met the Rome criteria for infant dyschezia while the remaining 37 infants had functional constipation. The infants with dyschezia presented at a much younger age compared to the constipated group (103 + 58 days versus 213 + 98 days) and passed in 80% soft stools while 92% of the constipated group had hard stools [2]. Both sexes and breastfed or non-breastfed infants were affected. Surprisingly, none of the referring physicians had made the diagnosis of infant dyschezia and some infants were prescribed suppositories to stimulate defecation or even osmotic substances (lactose or lactulose).

This misconception of infant dyschezia and constipation is also reflected in a population based prospective study from Italy. 2879 unselected healthy infants were included in the study and followed from birth until 1 year of age for gastrointestinal symptoms such as regurgitation, colicky behaviour, vomiting, diarrhea, and constipation [3]. Constipation was reported in 507 infants (17.6% of the cohort) with a mean age of 33 + 27 days, but in only 20 patients it was the cause for hospitalization. The young age at presentation makes dyschezia much more likely in most infants. Functional constipation hardly starts before 3 months of age and peaks between 6–24 months of life [2].

The diagnostic criteria for functional constipation in infants and young toddlers must include at least one of the following criteria [1]. 1) Two or fewer defecations per week, 2) History of excessive stool retentions, 3) History of painful or hard bowel movements, and 4) The presence of a large fecal mass in the rectum.

Constipation is a common problem in children. It needs to be considered as a symptom of different causes, not a well defined disease. If an organic disease cannot be identified as the cause of constipation, the constipation is labelled ‘functional’.

The pathogenesis may differ from child to child. Irritations interfering with the child’s daily routine like travelling or change of the diet may contribute. The time of toilet training is an especially critical period when constipation may occur, although no specific association between timing, style or techniques of toilet training and constipation has been identified. Perianal lesions like fissures or erosions after an acute gastroenteritis with painful defecations may promote stool withholding, and may be the start of a vicious circle. Children with neuromuscular disorders often suffer from severe chronic constipation due to immobilisation and mobility problems. Organic causes of chronic constipation are Hirschsprung’s disease, anorectal malformation, cow’s milk protein allergy, celiac disease, hormonal disorders like hypothyroidism, hypercalcaemia or rare neuromuscular disorders. Red flags pointing to an organic cause are the beginning of the constipation in the neonatal period, late passing of meconium (>24 h after birth), a displaced anus, or neuromuscular abnormalities.

While dyschezia is a benign self-limiting disorder and no intervention is needed and manipulation for defecation should be avoided, constipation requires treatment as early as possible. A duration of symptoms of less than 3 months before start of treatment is associated with better long-term outcome compared to prolonged delay of therapy [4].

Key messages
Infant dyschezia and functional constipation are two distinct functional disorders. They can be distinguished by history and require different management.

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<thead>
<tr>
<th>Infant dyschezia</th>
<th>Functional constipation of infancy</th>
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<tbody>
<tr>
<td>Man age of presentation</td>
<td>1) 6 months</td>
</tr>
<tr>
<td>Stool consistency</td>
<td>Soft</td>
</tr>
<tr>
<td>Type of feeding</td>
<td>Breast-fed = formula fed</td>
</tr>
<tr>
<td>Therapy</td>
<td>No</td>
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References