

Non-Pharmacological Treatment of Functional Constipation in Children

Education

Education and demystification are the first steps in the non-pharmacological treatment of FC. Information on the prevalence, symptoms, initiating and perpetuating (risk) factors, treatment options, and prognosis should be provided. Children should be actively involved in this conversation if allowed by their developmental age. A non-accusatory approach of both physicians and parents is of key importance. Children may feel guilty or embarrassed, especially about fecal incontinence episodes; it is therefore important to explain the pathophysiology of overflow incontinence. Childhood constipation is often a long-lasting problem, which should be explained to both parents and patients.

Toilet Training, Reward System, and Defecation Diary

Since the stasis of feces in the rectum can maintain constipation, it is important to evacuate the rectum frequently. In children with a developmental age of ≥ 4 years, this can be established by introducing a toilet-training program. Toilet training involves sitting on the toilet for 5 min after each meal to actively try to defecate. By going to the toilet after a meal, the patient takes advantage of the gastrocolic reflex that increases colonic peristalsis upon distension of the stomach, facilitating defecation.

The importance of a relaxed posture during defecation should be explained. To ensure a relaxed posture, foot support (by means of a footstool) is needed for children whose feet do not touch the floor when they are sitting on the toilet. To motivate a child for toilet training, a reward system can be introduced, where small gifts (e.g., stickers) are earned for completing toilet trainings. A daily stool diary can help to objectify the bowel pattern of children with FC. This diary also has a motivating purpose and is a helpful tool to evaluate treatment.

Dietary Fiber, Fluid, and Physical Activity

It has been suggested that children with FC might benefit from additional dietary fiber, extra fluid intake, and/or increased physical activity. These three interventions are discussed below.

Fiber

The normal dietary fiber requirements of children vary from child to child and are age dependent; in children older than 2 years of age, a minimal dietary fiber intake of “age plus 5 g” is usually recommended. A fiber intake below normal limits is associated with FC. Several randomized controlled trials (RCTs) on the effect of dietary fiber in children have been performed. However, these studies have used different definitions and outcome measures, and a recent systematic review applying Grading of Recommendations Assessment, Development and Evaluation (GRADE) has shown the overall quality of the evidence to be low. Therefore, normal fiber intake is recommended, but current evidence does not support the use of extra fiber supplements in children with FC with a sufficient dietary fiber intake.

Fluid

As with fiber, normal fluid requirements vary from child to child. One study regarding extra fluid intake in children with FC showed insufficient evidence of an advantageous effect on FC symptoms. Therefore, extra fluid intake in children with FC who already have a normal fluid intake is not recommended.

Physical Activity

A large prospective birth-cohort study demonstrated that physical activity is associated with a decreased risk of having FC at the preschool stage. However, no RCTs on the effect of increased physical activity on FC in children have been performed.

Behavioral Therapy

Behavioral problems occur in approximately one third of patients with FC. This has led to the idea that behavioral therapy might be a therapeutic option in these children. However, in an RCT, behavioral therapy had no advantage over conventional treatment with laxatives in treating childhood constipation. Nevertheless, when behavioral problems are present, behavioral therapy or referral to mental health services, in addition to laxative treatment, should be considered.

Biofeedback Training

Approximately 50 % of children with FC have abnormal defecation dynamics [25]. Biofeedback training employs reinforcing stimuli and thereby aims to achieve a recognizable sensation with an appropriate response in children with FC. The long-term goal is to teach children to recognize the sensation by themselves. Several RCTs have assessed the effect of biofeedback training on FC in children. However, there were significant methodological differences between these studies, which makes it difficult to compare them, and the current evidence does not support the use of biofeedback training for the treatment of childhood constipation [15, 45].

Excerpt from: Management of Functional Constipation in Children: Therapy in Practice

Ilan J. N. Koppen, Laureen A. Lammers, Marc A. Benninga, and Merit M. Tabbers
Paediatr Drugs. 2015; 17: 349–360. Published online 2015 Aug 11. doi::10.1007/s40272-015-0142-4

Open Access: This article is distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.