

Short Communication

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Impact of Functional Gastrointestinal Disorders in Infancy and the Role of Nutrition

Said el Deib^{1*}, Mohammad Eldesoky², Abdelhamid Elmesery³, Sameh Abdeazim⁴, Mohamed Laban⁵, Wael Abdelaal⁶ and Mohamed Alamir⁷

¹Yas clinic Hospital, Abu Dhabi, UAE

²SSMC Hospital Abu Dhabi, UAE

^{3,5,6,7}NMC royal hospital Abu Dhabi, UAE

⁴Mediclinic Hospital Abu Dhabi, UAE

ABSTRACT

Functional gastrointestinal disorders (FGIDs) such as infantile colic, constipation and colic occur in almost half of the infants. Functional gastrointestinal disorders (FGID) are common among children and may cause a significant symptom burden. The Rome criteria are symptom-based guidelines for the assessment of FGID among children and adults.

The most common FGID for children aged 0–12 months was infant regurgitation, the most common FGID for those aged 13–48 months were functional constipation and cyclic vomiting, and, for those aged over four years, functional constipation, functional dyspepsia, and irritable bowel syndrome. This reported overall incidence of FGID may be used as a benchmark of normative data among the general population and comparative data for those with comorbid disease.

The aim of this mini review article is to provide a critical and updated review on the management of FGIDs and their impact on the health of the infant and family to health care physicians. Guidelines and expert recommendations were reviewed. FGIDs are a frequent cause of parental concern, impairment in quality of life of infants and relatives, and impose a financial burden to families, health care, and insurance. Therefore, primary management of the FGIDs should be focused on improving the infants' symptoms and quality of life of the family. If more than parental reassurance is needed, available evidence recommends nutritional advice as it is an effective strategy and most of the time devoid of adverse effects. The role of healthcare providers in reassuring parents and proposing the correct behavior and nutritional intervention by avoiding inappropriate use of medication, is essential in the management of FGIDs.

*Corresponding author

Said El Deib YAS Clinic Hospital – Abu Dhabi, UAE (Neonatologist & Pediatrician, Pediatric & Neonatology Department, Yas Clinic Hospital AD), PO Box 4600 AD –UAE, – Mobile NO: +971501778189, E-mail: saideldeib@yahoo.com

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Introduction

Functional gastrointestinal disorders (FGIDs) cause distress to infants and parents and lead to a cascade of infant and parental discomfort, repetitive consultations with health care providers, frequent changes in milk formula and other costly non-pharmacological treatments [1]. Doctors often recommend medications without proven efficacy, which possibly induce adverse reactions. Furthermore, parents seek help from family members, friends, and social media exchanges, which are often inappropriate.

At birth, the microbiota, nervous and immune systems in the gastrointestinal (GI) tract exist in the immature state. Generally,

FGIDs are categorized into 7 different groups: infant regurgitation, infant colic, functional constipation, functional diarrhea, cyclic vomiting syndrome, infant dyschezia, and infant rumination syndrome. The diagnosis of a functional disorder virtually eliminates the organic disease as a cause of the symptoms, and is, in principle, a diagnosis made by elimination of organic disease. The impact of the symptoms of FGID varies from mild to extremely distressing for both the infant and parents. The symptoms may cause parental anxiety, poor quality of life, short and long-term health consequences, shortened duration of full breastfeeding, numerous changes in the formula, medical consultations, and associated significant healthcare costs.

FGIDs have a significant impact on personal and public healthcare expenses, because of huge consultation fees of health care professionals, drug prescriptions, over the counter or home

remedies, use of special milk formulas and prolonged diet, and loss of income due to absenteeism from work.

Diagnostic criteria

Diagnostic criteria for FGIDs based on international consensus were first published in 1989. The Rome criteria have been updated regularly (most recently in 2016) and include infantile FGIDs

Management of FGIDs

Parents of infants with FGIDs are understandably keen to find a quick and easy solution and will often opt for medication hoping for rapid relief from symptoms. The new era of social media-induced parental expectations for instant solutions have placed healthcare professionals under high pressure (often unneeded), given importance to investigations or recommended pharmacological treatments which are likely to bring little benefit in the absence of disease with possible adverse effects. There is a widespread overuse of medication in the management of FGIDs such as regurgitation and infantile colic. The cornerstone of the management of FGIDs in infants is parental reassurance, anticipatory guidance, education on natural evolution and different contributing factors, and adequacy of nutrition. Nutritional advice (feeding technique, volume and frequency, and change in the formula) can also be considered and should always stress the benefits of breastfeeding and offer appropriate support to continue breastfeeding. Overfeeding, especially in formula-fed infants, is a frequent cause of infant distress.

Conclusion

Symptoms and signs of FGIDs represent a frequent and important burden to infants and parents and have a negative impact on their quality of life. The cornerstone of optimal management of FGIDs in infancy is based on parental education and reassurance, which can be accompanied by appropriate nutritional recommendations. FGIDs are not an indication to stop breastfeeding, but it should be supported actively. In formula-fed infants, special formulas may be considered if reassurance and advice on nutrition based on appropriate volume and frequency of milk intake does not lead to sufficient improvement. In the absence of organic disease, it is unlikely that any pharmacological intervention will be helpful. Moreover, medication may cause adverse effects. FGIDs often lead to a vicious cascade of distressed infants, concerned parents, increased medical consultation, over-prescription and use of over-the-counter medications resulting in an escalation in healthcare costs.

It is hypothesized that appropriate management will contribute towards disruption of the cascade of parental anxiousness accompanied with a negative impact on the family's life and will alleviate the distress in infants. Nutritional guidance is essential with some evidence regarding efficacy as it is devoid of the risks of inducing adverse effects.

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