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Mini Review

Pediatric Gastroesophageal Reflux Disease

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Abstract

Gastroesophageal reflux disease is the result of persistent Gastroesophageal reflux associated with symptoms and/or complications. It is the most prevalent esophageal pathology in pediatric population and it is one of the most common causes for medical consultations. The identification of extra esophageal manifestations and associated alarm signals allows an appropriate treatment, an early identification of esophageal mucosal injury and prevention of complications.

Introduction

Gastroesophageal reflux (GER) occurs when there is incompetence of sphincter of the Gastroesophageal junction or when raised intragastric or intra-abdominal pressures exist sufficient to overcome this mechanism. Gastroesophageal reflux disease (GERD) results from a persistent GER and gives rise to troublesome symptoms or complications. Risk factors for GER in children and adolescents include: premature birth, obesity, history of repaired congenital diaphragmatic hernia or esophageal atresia, hiatus hernia and neurodisability. Also a family history of GER symptoms is common [1]. Significant GER usually begins in infancy and becomes less frequent with time. The highest prevalence of important GER refers to very young children and older female adolescents [2,3].

Possible symptoms of GER in pediatric age consist of heartburn, retrosternal pain and epigastric pain, but may also include choking episodes or apparent life-threatening events, mainly during infancy. Respiratory, feeding/behavioural problems and failure to thrive are other frequent problems. Non-IgE-mediated cow's milk protein allergy symptoms can be confounded with GERD, especially in infants with atopic disease or a family positive history [4]. A referral to a specialist for a possible upper gastrointestinal (GI) endoscopy should be done if there are persistent or unexplained symptoms [1,5,6]. Also other investigations such as esophageal pH study and upper GI contrast study may be performed before the referral, accordingly to respective age and/or presenting symptoms[6].

When non-pharmacologic measures fail to reduce reflux, a four-week trial of proton pump inhibitors or H2-receptor antagonists for children or adolescents with persistent heartburn, retrosternal pain or epigastric pain should be considered [7]. A minority of patients with severe or intractable GERD, in whom appropriate non-pharmacologic or pharmacologic treatment had been unsuccessful, surgery for GERD (fundoplication) may be required[1,8]. Some of the possible GERD complications are growth problems, esophagitis, recurrent pneumonia and/or otitis media, chronic cough, asthma, digital clubbing and dental erosion (particularly in cerebral palsy) [1].

Conclusion

The overvaluation of the symptoms in a child with physiological GER can lead to unnecessary additional tests and therapeutics. On the other hand, the misdiagnosis of GERD has important implications for the impact on life quality and for the risk of complications which can be associated with significant morbidity. The persistence and/or recurrence of symptoms general recommend endoscopic evaluation. Diagnostic delay is the most common cause of esophagitis in children and the existence of predisposing factors cause more frequent and severe relapses. The treatment of GERD should involve pharmacological therapy and the aggravating conditions modification. Surgical therapy is reserved for more serious situations.

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