Clinico Therapeutic Correlation in Pediatric Gastroesophageal Reflux Disease: Retrospective Study

Thesis

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List of Abbreviations

Abbr.	Full-term
ALTE	Acute life-threatning event
BE	Barret esophagus
CMA	Cow milk allergy
CMP	Cow milk protein
DZ	Dizygotic
EE	Eosinphilic esophagitis
EGD	Esophago-gastro-duednoscoy
ENT	Ear nose and throat
GER	Gastroesophageal reflux
GERD	Gastroesophageal reflux disease
GIE	Gastroesophageal endoscopy
H_2RAs	H_2 receptor antagonist
Hb	Hemoglobin
HH	Hiatus hernia
IV	Intra-venous
LES	Lower esophageal sphincter
MZ	Mono zygotic
NN	Neurological normal
PPIs	Proton pump inhibitors
RI	Reflux index
RR	Risk ratio
TLC	Total leucocytic count
TLESR	Transient lower esophageal sphincter relaxation
UGI	Upper gastrointestinal series

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Abstract

Abstract

BACKGROUND:

GERD is one of the commonest GI complaints in infancy; the incidence of the condition is reported to be 20% to 40% in infants. The diagnosis of GER can be made in most cases based upon the history and physical examination. Therapy with conservative measures and, if indicated, medications can be initiated empirically.

METHODS:

The files of all children diagnosed with GERD during the last 5 years (starting from January 2010) will be revised. the Pediatric Outpatient Clinic, Children Hospital, Ain Shams University

RESULTS:

The patients included in the study They were 68 males (56.7%) and 52 females (43.3%). Their ages at presentation ranged from 1 month and 4 years old with a Median (IQR) 0.5 (0.5 – 6.0) in months. • All patients diagnosed with GERD received pharmacological treatment (PPI or H2RA) with adjuvant treatment (Gaviscon), 95% of them had appositive response to that treatment. •

- 5% didn't respond to medical treatment and surgical antireflux operation was done.

Hiatus hernia and dilated esophagus in contrast study, esophagitis and stricture in endoscopy as investigation, and non responding to pharmacological treatment are significant predictors of antireflux surgery.

CONCLUSION:

- Vomiting and regurgitation are the most common symptoms of GERD.
- The age of diagnosis with median IQR 0.9 (0.5-2.0) it means that 75% of cases were below 2 years.
- GERD is confirmed by pH study and surgical decision is depending on the result of pH study.
- Hiatus hernia and dilated esophagus in contrast study, esophagitis and stricture in endoscopy as investigation, and non responding to pharmacological treatment are significant predictors of antireflux surgery.

Key wards GERD, hiatus, Transient lower esophageal sphincter relaxation

Introduction

Gastroesophageal reflux (GER) is the effortless passage of gastric contents into the esophagus. It can consist of gas (eructation, or burp) or fluid (possiting, wet burp, "spitting up" in infants, or, incorrectly, vomiting). In normal children and adults, this occurs several too many times a day, but fluid rarely reaches the mouth ***(Jones, 2001).***

Gastroesophageal reflux disease (GERD) is the most common esophageal disorder and the most common cause for referral of infants to gastroenterologists ***(Thach, 2000).***

The incidence of the disease is reported to be 20% to 40 % in infants ***(Keady, 2007).***

Typical symptoms of GERD include vomiting, regurgitation and a sour or bitter taste in the mouth commonly referred to as water brash. In infants and young children, the physician must recognize non verbal clues such as crying, irritability, sleep disturbances, poor appetite, and weight loss as signs of GERD ***(Dellert et al., 1993).***

Atypical manifestations of GERD include apnea, bradycardia, wheezing, stridor, recurrent pneumonia, chronic cough, Sandifer's syndrome, and laryngitis ***(Scott et al., 1999).***

The diagnosis of GER can be made in most cases based upon the history and physical examination. Therapy with conservative measures and, if indicated, medications can be initiated empirically ***(Vandenplds et al., 1993).***

However, if the presentation is atypical or if the response to treatment is suboptimal, evaluation beginning with an upper gastrointestinal series (UGI) is warranted ***(Vandenplas et al., 1997).***

The UGI is useful to delineate the anatomy of the upper GI tract ***(Johnston et al., 1996).*** The UGI also can demonstrate functional aspects such as deglutition and esophageal motility ***(Kahrilas and Gupta, 1990).***

Endoscopy associated with histology is a reliable and accurate method to demonstrate esophageal damage induced by GERD, such as inflammation and strictures ***(El-serag et al., 2002).***

Esophageal pH monitoring is considered the gold standard for the diagnosis of GER ***(Suskind et al., 2001),*** because the test allows direct measurement of esophageal pH in physiologic circumstances over many hours ***(Boyle, 2006).***

Management of GERD in both adults and children is based on disease severity, the degree of symptoms, and

presence or absence of complications of GERD determined by the diagnostic evaluation ***(Rudolph et al., 2001***).

Conservative measures include parent reassurance, dietary or behavioral modifications ***(Monzani and Oderda, 2010; Gremse, 2004),***

Although some authors consider conservative therapy to be an efficient first choice for improving regurgitation even compared with thickened formula ***(Hegar et al., 2008)***, the latter has been considered a reliable dietary management for decreasing recurrent regurgitation and/or vomiting in young infants ***(Miyazawa et al., 2007).***

Pharmacologic treatment should be reserved for those with significant symptoms or pathogenic GERD ***(Tsou et al., 1991).***

When medical management fails to control the symptoms and consequences of GERD, surgical intervention should be considered ***(Fonkalsrud et al., 1987).***

Laparoscopic Nissen fundoplication is successful in preventing reflux in more than 95% of patients ***(Ostlie and Holcomb, 2007).***

Aim of the Work

To find out the response of children aged from 1 month to 18 years old suffering from GERD to treatment in Ain Shams Pediatric Gastroentrology Unit, Children Hospital and to make a regression to predict of operations.