DIAGNOSIS OF GASTROESOPHAGEAL REFLUX IN INFANTS AND CHILDREN USING pH PROBE MONITORING

Thesis
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of
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By

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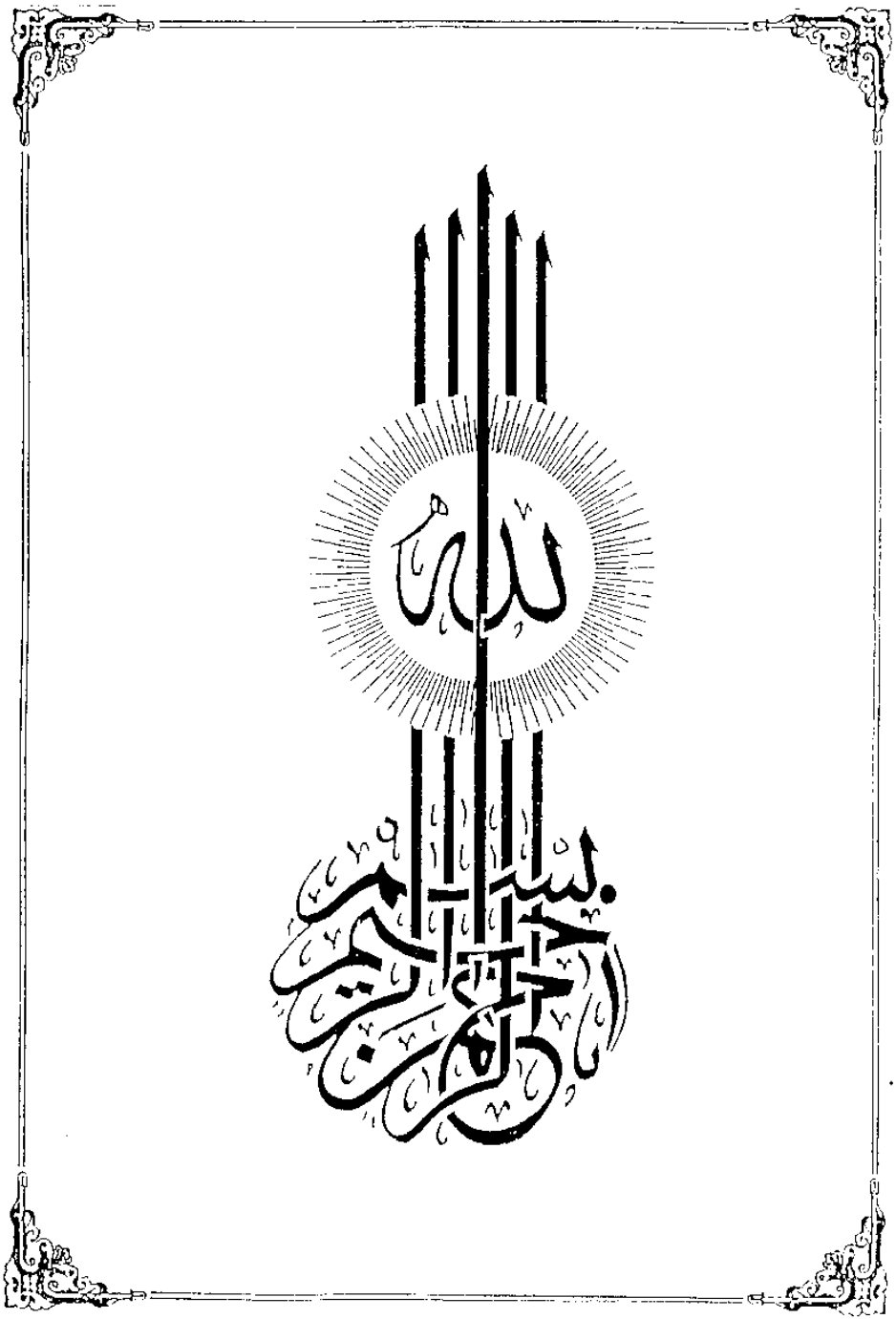
1996

﴿ إقرأ وربك الاكرم * الذي علم بالقلم *
علم الإنسان ما لم يعلم ﴾

صدق الله العظيم [العلق ٣ : ٥]



TO...

My Family

Abdulla

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LIST OF ABBREVIATIONS

ALTE	Apparent life threatening event
BE	Barrett's esophagus
GEJ	Gastroesophageal Junction
GOR	Gastroesophageal reflux
GORD	Gastroesophageal reflux disease
HCL	Hydrochloric acid
LES	Lower esophageal sphincter
RAP	Recurrent abdominal pain
RI	Reflux Index
SART	Standard Acid Reflux Test
SIDS	Sudden Infant Death Syndrome
TLESR	Transient L.E.S. relaxation
UES	Upper Esophageal Sphincter
ZMD	Mean duration of sleep reflux

INTRODUCTION AND AIM OF THE WORK

INTRODUCTION

Although the esophagus functions simply as a conduit between the mouth and the more distal gastrointestinal tract, its physiology and pathoghysiology display a complexity that contrasts with that simple function. Thus there are still mysteries about this "tube" and its disorders, and each year brings new revelations.

Most attention continues to focus on GOR, its emerging pathophysiology, multiple manifestations, various diagnostic techniques and improving methods of treatment *(Orenstein, 1993)*.

Complications of GOR include; frequent vomiting, dysphagia and respiratory diseases (Recurrent Pneumonia, Apnea & Stridor) *(Assadamongkol et al., 1993)*.

Gstroesophageal reflux in infants and children is common. It is distinguished from the disorder in adult population by the large number of thriving infants with functional reflux and by the large proportion of older infants and children with secondary pathologic reflux in whom vomiting and reflux are symptoms of another condition. Evaluation of the child with suspected reflux starts with a thorough history and physical examination. Diagnostic testing must be tailored to the suspected diagnosis *(Sondheimer, 1994)*.

Assadamongkol et al. (1993) used 24-hrs esophageal pH monitoring as a gold standard for the diagnosis of pathological GOR in their study and they suggested that all children who have a history of dysphagia, vomiting and frequent respiratory problems should be evaluated for GOR.

AIM OF THE WORK:

To evaluate the clinical significance of suspected symptoms of GOR using 24-hours esophageal pH monitoring.

REVIEW OF LITERATURE

GESTROESOPHAGEAL REFLUX (GOR) IN INFANTS AND CHILDREN

Definition:

The gastro-esophageal reflux (GOR) is defined as the adverse movement of gastric contents into the esophagus due to defective gastro-esophageal junction *(Jolley, 1992)*. It is an occasional physiologic event in normal adults and children, but becomes pathological when its intensity and frequency increases *(Davies and Sandhu, 1995)*.

Pathological GOR or gastroeosophageal reflux disease (GORD), is that which causes symptoms or physical complications *(Holloway and Orenstein, 1991)*.

Gastro-esophageal reflux (GOR) is common in children especially in the first year of life. In the great majority this constitutes a physiological event and is of little clinical consequence. The recognition of a pathological GOR is important in this age group and the clear clinical presenting symptoms such as vomiting, respiratory distress or apnea have been demonstrated *(Assadamongkol et al., 1993)*.

Incidence:

The exact incidence of pathological GOR is not well established. Sacre and Vandenplas reported the incidence of pathological GOR to be 8% in largely unselected healthy infants screened for SIDS risk *(Sacre & Vandenplas, 1989)*.