Histopathological Study of Gastrointestinal Endoscopic Biopsies in Pediatric Patients

Thesis

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✍. *Nada Nasser*

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List of Abbreviations

Abb.	Full term
AD	Atopic dermatitis
AG	Atrophic gastritis
AGA	Anti deamidated gliadin peptide antibodies
AGA	Antibodies against gliadin
AIG	Autoimmune gastritis
AlpA/B	Adherence lipoprotein A and B
AMAG	Autoimmune atrophic gastritis
APCA	Anti-Parietal Cell Antibody
APCs	Antigen- Presenting Cells
ASCA	Anti-Saccharomyces cerevisiae antibodies
BabA	Blood group antigen binding adhesion
BRG	Bile reflux gastritis
cagA	cytotoxin associated gene
CC	Collagenous colitis
CCC	Clear cell colitis
CD	Crohn's disease
CG	Collagenous gastritis
CMP	cow's milk protein
CMPA	Cow's milk protein allergy
CRP	Serum C-reactive protein
CT	Computed tomography
DGP	Deamidated gliadin peptide
DGR	Duodenogastric reflux
EAACI	European Academy for Allergy and Clinical Immunology

Abb.	Full term
EC	Eosinophilic colitis
ECL	Enterochromaffin-like
EG	Eosinophilic gastritis
EGD	Esophagogastroduodenoscopy
EGE	Eosinophilic gastroenteritis
EGIDs	Eosinophilic gastrointestinal disorders
EIM	Extraintestinal manifestations
EMA	Endomysium
EoE	Eosinophilic esophagitis
EoEHSS	EoE histology scoring system
ESR	Erythrocyte sedimentation rate
FEG	Focally enhanced gastritis
FPI	Food protein induced
GERD	Gastroesophageal reflux disease
GFD	Gluten-free diet
GIT	Gastrointestinal tract
H.p.	Helicobacter pylori
HES	Hypereosinophilic syndrome
HLA	Human leucocyte antigen
HPF	High power field
HpSS	H pylori silver stain
IBD	Inflammatory bowel disease
IBD-U	IBD unclassified
IC	Indeterminate Colitis
iceA	induced by contact with the epithelium
ICU	Intensive care unit

Abb.	Full term
IELs	Intraepithelial lymphocytes
IFNγ	Interferon gamma
IgA	Immunoglobulin A
IgE	Immunoglobulin E
IgG	Immunoglobulin G
IL	Interleukin
MALT	Mucosa-associated lymphoid tissue
MC	Microscopic colitis
MRE	Magnetic resonance enterography
NG	Nodular Gastritis
NOS	Not otherwise specified
NSAIDs	Nonsteroidal anti-inflammatory drugs
OFCs	Oral food challenges
OipA	Outer inflammatory protein A
pANCA	perinuclear anti-neutrophil cytoplasmic antibodies
PAS	Periodic acid Schiff
Pg	Pepsinogen
PPI	Proton Pump Inhibitors
PSC	Primary Sclerosing Cholangitis
SabA	Sialic acid binding adhesion
SPSS	Statistical Package for Social Sciences
SPT	Skin-prick testing
T h	T helper
Tregs	Regulatory T cells
tTG	tissue transglutaminase
UBT	Urea Breath Test

Abb.	Full term
UC	Ulcerative colitis
vacA	vacuolating associated cytotoxin
WAO	World Allergy Organization

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HISTOPATHOLOGICAL STUDY OF GASTROINTESTINAL ENDOSCOPIC BIOPSIES IN PEDIATRIC PATIENTS

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ABSTRACT

Background: Non neoplastic GI lesions in pediatrics are variable and differ in types and prevalence among each pediatric age group. Helicobacter pylori is an important pathogen that can cause gastritis and peptic ulcers in adults as well as in children. Celiac disease is a gluten-dependent autoimmune disorder which affects individuals having genetic susceptibility. Eosinophilic gastrointestinal diseases are disorders that primarily affect the gastrointestinal tract with eosinophil-rich inflammation in the absence of known causes for eosinophilia. Inflammatory bowel disease (IBD) is a chronic inflammatory disorder, mainly affecting the gastrointestinal tract with extraintestinal manifestations and associated immune disorders.

Aim of the work: To study different types of paediatric non neoplastic gastrointestinal lesions from gastrointestinal endoscopic biopsies received at the Pathology Department in Ain Shams University hospital during a period of 2 years (2017-2018), and to correlate them with the clinicopathological presentations and endoscopic findings.

Patients and Methods: A cross sectional study was conducted on all pediatric gastrointestinal biopsies received at Pathology Department in Ain Shams University Hospital during the period of two years (2017- 2018). Only cases with information for all the covariates (n=580) were selected and the results were statistically analyzed.

Results: Total 580 pediatric cases were enrolled according to inclusion criteria. Nonspecific gastrointestinal inflammation represented (47.1%), Helicobacter pylori associated gastrointestinal inflammation represented (43.5%), Eosinophilic gastrointestinal disease represented (3.8%), Inflammatory bowel disease (IBD) represented (3.7%), Celiac disease represented (1.9%).

Conclusion: This is the first study conducted in Ain Shams University Hospitals to assess the different types of pediatric non neoplastic gastrointestinal lesions received with clinicopathological and endoscopic correlation. The most common pediatric non neoplastic GI lesion is Helicobacter pylori infection. The diagnosis of pediatric non neoplastic GI disorder necessitates interdepartmental teamwork between GI pediatricians and pathologists.

Keywords: H. pylori, Eosinophilic GI disease, IBD, Celiac disease