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Research Article

### ANALYSIS OF GASTROINTESTINAL AND LIVER DISEASES IN PEDIATRICS: A POPULATION-BASED STUDY

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**Introduction:** Current advances in medical sciences report that gastrointestinal diseases affect 60 to 70 million Americans annually, GI disease attributes to substantial number of deaths throughout the world, ultimately leading to utilization of millions of money on these diseases through direct & indirect costs.

**Aims and objectives:** The basic aim of the study is to find the different kind of gastrointestinal and liver diseases in pediatrics.

**Methodology of the study:** This study was conducted at Recep Tayyip Erdogan Hospital, Muzafargarh during 2017 to 2018. There were 100 children who was selected for this study. Both male & female patients will be included in our study. The questionnaire includes a variety of questions which includes demographic data, comorbid, diagnostic tool, short clinical history, treatment given.

**Results:** Out of 100 patients, 16 patients were referred to other hospitals & 13 were lost to follow up. In the study, there were 43 (48.8%) males & 45 (51.2%) females, of which age range was 1 month to 5 year patients were 31 patients (35.2%), 6 to 10 years 36 (40.9%), above 10 were 21 (16.7%) patients in two year time span, there were 18 patients with Celiac disease 18, Hepatitis B patients were 14 (19.4%), Hepatitis C 13 (18.1%) were most frequently reported, 11 patients of Hepatitis A, there were 7 patients (9.7%) of IBD & biliary atresia 4 (5.6%), other diseases were with primary sclerosing cholangitis, liver abscess & Helicobacter Pylori were 3 (4.2%) and hydatid cyst 2 (2.8%).

**Conclusion:** It is concluded that Celiac disease, Hepatitis B and Hepatitis C are the most common diseases seen at pediatric clinics at tertiary care setup, therefore steps must be taken for the prevention of these diseases.

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**INTRODUCTION:**

Current advances in medical sciences report that gastrointestinal diseases affect 60 to 70 million Americans annually, GI disease attributes to substantial number of deaths throughout the world, ultimately leading to utilization of millions of money on these diseases through direct & indirect costs. Hence detailed statistics illustrates the prevalence of Gastrointestinal diseases are required, reports detailing burden of GI diseases can only be constructed if the prevalence of the disease is known [1]. Gastrointestinal disease in paediatric include various diseases of which celiac disease is the most prevalent, affecting large number of children. MW et al reported that the prevalence of celiac disease found to be 0.9%, of which most of the cases were undiagnosed until a preventive tissue transglutaminase test was done [2]. However the most astonishing news that 90% of the celiac disease remain underdiagnosed in Pakistan till many years, Poorly treated celiac disease can lead to complications such as anemia, stunted growth, intestinal lymphoma so it's a mere responsibility of pediatric physicians to rule out and diagnose celiac disease[3]. Anti-endomysial and Anti Tissue transglutaminase antibodies are positive in paediatric patient but biopsy is often more sensitive.

Symptoms including those of the gastrointestinal tract have generally been correlated with various psychiatric disorders including anxiety, panic and depressive disorders [4]. A lot of work has been done regarding various syndromes related to GIT such as chronic dyspepsia and irritable bowel syndrome, but there is not enough literature when it comes to the frequency of overall GIT somatization in relation to depressive disorder especially among both genders in the local literature [5].

**Aims and objectives**

The basic aim of the study is to find the different kind of gastrointestinal and liver diseases in pediatrics.

**Methodology of the study**

This study was conducted at Recep Tayyip Erdogan Hospital, Muzafargarh during 2017 to 2018. There were 100 children who was selected for this study. Both male & female patients will be included in our study. The questionnaire includes a variety of questions which includes demographic data, comorbid, diagnostic tool, short clinical history, treatment given.

**Statistical analysis**

Student's t-test was performed to evaluate the differences in roughness between group P and S. Two-way ANOVA was performed to study the contributions. All the data was recorded on a pro forma and analyzed using SPSS-12.

**RESULTS:**

Out of 100 patients, 16 patients were referred to other hospitals & 13 were lost to follow up. In the study, there were 43 (48.8%) males & 45 (51.2%) females, of which age range was 1 month to 5 year patients were 31 patients (35.2%), 6 to 10 years 36 (40.9%), above 10 were 21 (16.7%) patients. in two year time span, there were 18 patients with Celiac disease 18, Hepatitis B patients were 14 (19.4%), Hepatitis C 13 (18.1%) were most frequently reported, 11 patients of Hepatitis A, there were 7 patients (9.7%) of IBD & biliary atresia 4 (5.6%), other diseases were with primary sclerosing cholangitis, liver abscess & Helicobacter Pylori were 3 (4.2%) and hydatid cyst 2 (2.8%).

**Table 1 Most common diseases in paediatric out patient department.**

Disease	No. of patients
Celiac disease	18(20.45%)
Hepatitis B	14(19.4%)
Hepatitis C	13(18.1%)
others	43(48.8%)

**DISCUSSION:**

Gastrointestinal diseases are the broad spectrum of diseases of which the most common are celiac disease and Hep B,C are common diseases, these diseases have a high prevalence among the pediatric population, furthermore clinician most of the times find it difficult to diagnose the Gastrointestinal disease where the presenting is always abdominal pain[6]. G.I related diseases include celiac disease which was the most common disease presented to outdoor patient which was found to be 17.8%, where as in an another study it was found to be 7%, which was low In comparison, furthermore there were also underdiagnosed cases of celiac disease, similarly tissue transglutaminase were positive in 61.1% of the patients with celiac disease in our study, whereas Trovato [7]. CM et al in his study reported that paediatric patients with seropositive TTG were 68.5%, patients with the celiac disease develop poly autoimmunity, Unusual high rate of incidence of celiac disease has been reported in study conducted at Sweden, during 40 year time period 1030 patients have celiac disease, another article reported the prevalence of celiac disease which is found to be 4.1%, whereas its frequency among children of Germany is found to be 0.9% [8,9].

**CONCLUSION:**

It is concluded that Celiac disease, Hepatitis B and Hepatitis C are the most common diseases seen at pediatric clinics at tertiary care setup, and therefore steps must be taken for the prevention of these diseases.

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