

the prevalence of rhythm disorders in children. In the structure of cardiovascular diseases arrhythmias account for about 27 % of childhood diseases, but they are often detected in healthy children.

Aim

To study heart rhythm disorders in children who were on inpatient treatment in the cardiorheumatology department of the Children's Clinical City Hospital No. 4 in the city of Tashkent.

Material and methods

The analysis of 40 inpatient patients of the children 's cardiorheumatology department for the period of 2019 was carried out. Of these, 23 boys (57.5 %), 17 girls (42.5 %). The age structure of the examined children was from 1 year to 18 years, among them, children aged 1–3 years — 6 (15 %); 4–7 years — 11 (27.5 %); over 7 years — 23 (57.5 %). The general clinical examination of the child included a clinical examination, electrocardiographic examination, and daily monitoring of the Holter ECG.

Results

Out of 40 patients, 21 (52.5 %) had cardiac arrhythmias. Moreover, 8 children (38.1 %) received complaints of rhythm disorders, the rest of the heart rhythm disorders were detected during the examination. The most common rhythm disorders occur in the age group over 7 years. It was found that significantly more frequent cardiac arrhythmias occur in males 13 (61.9 %). In the anamnesis of children with rhythm disorders, family burden due to cardiovascular pathology, repeated acute infectious diseases and foci of chronic infection are often detected. Rhythm disturbances in children are often asymptomatic, which does not allow us to accurately determine the time of their appearance. In 13 (61.9 %) cases, arrhythmias were detected accidentally (on an ECG). The structure of cardiac arrhythmias was as follows: sinus node dysfunction 1 (4.8 %); WPW phenomenon 1 (4.8 %); sinus tachycardia 5 (23.8 %); sinus bradycardia 11 (52.4 %); paroxysmal ventricular tachycardia 1 (4.8 %); ventricular extrasystole 2 (9.5 %). Regardless of the form of cardiac arrhythmias, the main complaints are: cardialgia 15 (71.4 %); fatigue 12 (57.1 %); headaches 7 (33.3%); palpitations 6 (28.6 %); lack of air 4 (19 %); fainting 1 (4,8 %). In the vast majority of cardiac arrhythmias occur against the background of cardiovascular diseases: secondary cardiomyopathy 2 (9.5 %); congenital heart defects 3 (14.3 %); somatoform vegetative-vascular dystonia 11 (52.4 %) and others diseases account for 5 (23.8 %).

Conclusions

Heart rhythm and conduction disorders are found in children of all ages. In order to detect arrhythmias in a timely manner, it is advisable to conduct regular ECG monitoring, especially during periods of the greatest risk of their development (older than 7 years old).

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**GASTROESOPHAGEAL REFLUX DISEASE
AND IT`S CURRENT TRENDS IN THE MANAGEMENT**

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Introduction

Gastroesophageal reflux disease (GERD) is a chronic disorder of the upper gastrointestinal tract with global distribution. The incidence is on the increase in dif-

ferent parts of the world. This article findings have given rise to understand its epidemiology, diagnosis and management. The current definition of GERD by (The Montreal definition) is defined as "a condition which develops when the reflux of stomach contents causes troublesome symptoms and/or complications "is not only symptom-based and patient-driven, but also encompasses esophageal and extra-esophageal manifestations of the disease. The implication is that the disease can be confidently diagnosed based on symptoms alone. Nonerosive reflux disease (NERD) remains the predominant form of GERD. Current thinking is that NERD and erosive reflux disease (ERD) are distinct phenotypes of GERD rather than the old concept which regarded them as components of a disease spectrum. Non erosive reflux disease is a very heterogeneous group with significant overlap with other functional gastrointestinal disorders. There is no gold standard for the diagnosis of GERD, but in recent research's had shown that Ambulatory pH monitoring had brought some wide range of early investigations in patients with reflux disease. Since it has an advance usage of Esophageal pH monitoring and intraluminal impedance monitoring they have thrown some light on the heterogeneity of NERD. A substantial proportion of GERD patients continue to have symptoms despite optimal PPI therapy, and this has necessitated article into the development of new drugs. Several safety concerns have been raised about chronic use of proton pump inhibitors but these are yet to be substantiated in controlled studies. The article about efficacy of long-term medical treatment compared to surgery continues, however, recent data indicate that modern surgical techniques and long-term PPI therapy have comparable efficacy. These and other issues are subjects of further article.

Aims

The purpose of this article is to carry out the epidemiological data to rule out the evolving issues of GERD, establishing the early diagnosis and making an optimal treatment with modern techniques in order to decrease the economic burden of this disease and to improve the quality of life in people with GERD.

Materials and Methods of research

Information was collected from several databases. We searched articles published in MEDLINE, EMBASE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed searches (2019–2021) by using the keywords GERD, NERD, epidemiology, diagnosis and management were examined for appropriate references.

Results and Discussion

According to the epidemiological database GERD has a global distribution. GERD is now the most common upper gastrointestinal disease in the western countries, with 10 to 20 % of the population experiencing weekly symptoms. In Asia, the prevalence has been variously reported but is generally lower (2.3 % by Wong et al. and 6.2 % by Chen et al.). Population-based survey studies indicate that the prevalence is rising. Possible explanations for this include aging population, the obesity epidemic (and associated changes in diet or physical activity), and changes in sleep pattern. A limited number of studies have reported GERD and its complications to be rare in Africa. However, a recent study of Nigerian medical students showed a prevalence of 26.3 %.

Diagnosis: There is no gold standard for the diagnosis of GERD. But the Society of American Gastrointestinal Endoscopic surgeons (SAGES) Practice Guidelines stipulates that the diagnosis of GERD by ambulatory pH monitoring is shown to be the gold standard diagnosis because of its increased advance, early detection and Patients with reflux disease who do not respond to medications are best evaluated by ambulatory pH monitoring. It is based upon the duration of time, the intra-esophageal pH is less than 4, with normal defined as less than 4 % over a 24-hour period and other investigations can be if at least one of the following conditions ex-

ists: a mucosal break seen on endoscopy in a patient with typical symptoms, Barrett's esophagus on biopsy, a peptic stricture in the absence of malignancy, or positive pH-metry and patients with NERD who are negative on pH-metry. The diagnosis of GERD can usually be made clinically. Heartburn and regurgitation are the most reliable symptoms in establishing the diagnosis, identifying up to 70 % of patients with GERD. Chest pain is also indicative of GERD once a cardiac cause has been ruled out. In patients with atypical symptoms—such as dyspepsia, epigastric pain, nausea, bloating, and eructation—a good clinical response to a proton pump inhibitor (PPI) may help establish GERD as the diagnosis but should not be considered definitive. Endoscopy should be reserved for patients with alarm symptoms, including dysphagia, unintentional weight loss, and anaemia; those with risks for BE; and those whose symptoms have been unresponsive to adequate PPI therapy. Barium swallow studies, esophageal biopsy, and esophageal manometry are not helpful for diagnosis of GERD but may help to evaluate the patient for complications, such as esophageal stricture or ring, or to rule out other diagnosis such as achalasia another diagnosis like radiology, histological examination and ambulatory pH monitoring were highly invasive for NERD.

Extraesophageal symptoms such as chronic cough, asthma, dental erosions, sinusitis, and laryngitis have been attributed to GERD; however, multiple studies have failed to conclusively demonstrate causality. Indeed, trials in which patients with extraesophageal symptoms are empirically treated with PPIs have no, poor, or mixed evidence for improvement of those symptoms, even in patients with objective evidence of GERD on endoscopy or reflux monitoring. Thus, its use is justified when the diagnosis of GERD is uncertain, when symptoms are refractory, or when surgical management is being considered in the absence of other objective evidence of GERD.

Treatment: The goals of treatment include relief of symptoms, healing of esophagitis, prevention of recurrence, and prevention of complications. The principles of treatment include lifestyle/dietary modifications which are considered as first line of treatment. They include weight loss (for patients who are overweight); avoiding alcohol, chocolate, citrus juice, tomato-based products, peppermint, coffee, and onion. Other measures include avoiding large meals, decreasing fat intake, cessation of smoking, elevation of head of the bed, and avoiding recumbency for 3 hours postprandial and control of gastric acid secretion using drugs like Antacids, Proton Pump Inhibitors (PPI), Histamine 2 receptor antagonists (H2RAs) and newer treatment for GERD is Acid-suppressive therapy which currently forms the mainstay of treatment for GERD, and PPI is the drug of choice in this regard. However, a substantial proportion of patients diagnosed with GERD continue to experience symptoms despite PPI treatment, and 22 % of PPI users report taking additional over-the-counter medicines to control their symptoms, Transient lower esophageal sphincter relaxation (TLESR) is an important factor behind the occurrence of reflux, and pre-clinical studies have identified gamma aminobutyric acid (GABA) type B receptor (GABAB) agonists and metabotropic glutamate receptor 5 (mGluR5) modulators as candidate drugs for modifying TLESR. Baclofen is an example of the former, while ADX10059 is an example of the latter. Both drugs reduce the incidence of TLESR but poor tolerability is the key issue with these drugs or surgical treatment with corrective laparoscopic antireflux surgery (LARS) in patients with GERD has demonstrated that both approaches are equally effective as most patients achieve and remain in remission at 5 years when compared with optimized esomeprazole therapy and LARS in patients with GERD. Surgery for GERD has evolved from an open to a laparoscopic procedure and recently to a new incisionless procedure called transoral incisionless fundoplication. The most common procedure is Nissen fundoplication, which can be open or laparoscopic. Fundoplication can involve a complete (360 degrees) or partial (varying degrees) wrap of the LES with a portion of

the stomach, thereby increasing the LES pressure. In the era of open antireflux surgery, symptom response rates of 80–90 % were reported. Even at that, many patients avoided it because of high morbidity and other way of surgical procedure is Endoluminal fundoplication is a new, modified version of open or laparoscopic fundoplication which accesses the stomach through the mouth, thereby eliminating the need for incisions. With the introduction of laparoscopic techniques, there has been an exponential growth in the number of antireflux operations and their advantages include fewer incisional hernias, shorter hospital stay, less pain, quicker return to work, and fewer defective wraps at follow-up endoscopy.

Conclusion

GERD is one aspect of gastroenterology that has undergone tremendous innovations in the past years and is still an area of intensive research. There have been innovations in the definition, classification, diagnosis, clinical course, and management of GERD. Nonerosive reflux disease (NERD) is the variant of GERD that affects over 60 % of patients with GERD and it is not only more heterogeneous than erosive esophagitis but has a different pathophysiology and response to standard medical therapy. Because GERD is a chronic, relapsing disease, patients have to be managed with either long-term medical treatment or surgery after a thorough analysis of the pros and cons of each modality. A number of issues remain unresolved about GERD and it is hoped that the next couple of years would come with more discoveries and modern techniques in this important disease.

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CLINICAL PERSPECTIVES AND HEPATOLOGICAL CARE FOR LIVER DISEASE IN ASSOCIATED WITH COVID-19

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Introduction

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is an RNA virus first reported in humans in Wuhan, China, in December 2019. The virus has since spread rapidly worldwide causing coronavirus disease 2019 (COVID-19), which continues to have a devastating effect on global health. The majority of patients with SARS-CoV-2 infection remain asymptomatic or have mild symptoms, including fever, cough, anosmia and headache. However, around 15 % develop severe pulmonary disease typically over 10 days, leading to respiratory compromise, which might progress to multi-organ failure, coagulopathy and death. Oxygen supplementation, invasive ventilation and other supportive measures now form part of the standard-of-care in hospitalized patients; however, mortality remains high among those with critical disease. Common risk factors consistently associated with severe COVID-19 are now well established and include advancing age, male sex and a burden of