COMPARATIVE ANALYSIS OF CARDIAC ARRHYTHMIAS WHEN STABLE TENSION ANGINA IS ACCOMPANIED BY CHRONIC PANCREATITIS

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ABSTRACT

The purpose of the study: A comparative analysis of the results of ECG-holter monitoring of coronary heart disease, stable tension angina with chronic pancreatitis. Material and methods. The study involved 32 patients with coronary heart disease (CHD) and chronic pancreatitis, as well as 30 patients with ischemic heart disease without chronic pancreatitis. Daily holter monitoring was performed in patients in the main group and control group, the results were analyzed. The study is based on the results of a daily ECG-holter monitoring test. (Kontek, 2019, TLK5000 / TLK9803, Shenzhen Pray-med Technology Co., Ltd, China). Results. Holter monitoring revealed changes in the electrocardiogram in 40 out of 62 patients, which is 64.5%. Sinus tachycardia was detected in 22.8% of patients with ischemic heart disease not accompanied with gastrointestinal disorders, and it was statistically significant (p <0.05). Differences in statistical data of patients in this group (r <0.01) based on S/T elevation. Sinus tachycardia (38.9%) and other parameters were significantly different (r <0.05) when co-morbid with cardiovascular and digestive tract diseases. Conclusion. No differences were found in the one-time ECG examination taken from the main group of patients. During the daily holter monitoring, the differences in pulse generation and conduction disturbances were particularly noticeable.

Keywords: stable tension angina, chronic pancreatitis, ECG-holter monitoring, digestive tract, sinus tachycardia

I. INTRODUCTION

Today, one in three people worldwide dies from cardiovascular disease and its complications. This is 31% of the average mortality rate. The incidence of cardiovascular disease in combination with other diseases is 42.9%. This increases the disability rate among those over 50 years old by 26.3%. (Medicine and Life, Zhao et al., 2015) [2]. Despite the achievements of modern medicine, disability remains one of the medical and social problems.

According to the WHO, in 2018, 10-12% of the world’s population suffered from chronic pancreatitis. Studies show that the life expectancy of patients with chronic pancreatitis is reduced by 15-20 years. (Talamini G, Bassi C, Butturini G, et al. [5]. Outcome and quality of life in chronic pancreatitis. JOP 2001) Over the past 25 years, the number of cases of chronic pancreatitis in Uzbekistan has increased 2.1 times [5].

Chronic pancreatitis increases the risk of cardiovascular disease, one of the leading causes of death from chronic pancreatitis is a 1.6-fold increase in myocardial infarction. (Ito K, Ramirez-Schon G, Shah PM, et al. Myocardial function in chronic pancreatitis. Ann Surg 2009).

The study of hemodynamic changes resulting from impaired endocrine and exocrine function of the pancreas in chronic pancreatitis, the effect of vasoactive compounds on cardiac index and vascular resistance allows optimizing measures to prevent the occurrence of cardiovascular disease (DiCarlo V, Nespoli A, Chiesa R, et al.). al. Hemodynamic and metabolic impairment in chronic pancreatitis. World JS 2011);

The purpose of the study: A comparative analysis of the results of ECG-holter monitoring of coronary heart disease, stable tension angina with chronic pancreatitis.
II. MATERIAL AND METHODS

The study was conducted in patients treated in the departments of cardiology, cardiorehabilitation and cardio resuscitation of the multidisciplinary clinic of the Tashkent Medical Academy in 2019-2021. The study involved 32 patients with coronary heart disease (CHD) and chronic pancreatitis, as well as 30 patients with ischemic heart disease without chronic pancreatitis. They met all the criteria developed and agreed in writing to participate in the study. Patients ranged in age from 40 to 79 years, of whom 38 were women and 24 were men. Daily holter monitoring was performed in patients in the main group and control group, the results were analyzed. The study was based on the results of daily ECG-holter monitoring. (Kontek, 2019, TLK5000 / TLK9803, Shenzhen Praymed Technology Co., Ltd, China).

Age and sex characteristics of examined patients with ischemic heart disease (Table 1)

<table>
<thead>
<tr>
<th>Age</th>
<th>Men (n=24)</th>
<th>Women (n=38)</th>
<th>Total (n=62)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-49</td>
<td>3</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>50-59</td>
<td>7</td>
<td>18</td>
<td>25</td>
</tr>
<tr>
<td>60-69</td>
<td>11</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>70-79</td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>80 and elder</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Of the patients, 40–49 years were 20.96% (13 patients), 50–59 years were 40.32% (25 patients), 60–69 years were 25.8% (16 patients), and 70–79 years were 11.29% (7 patients). The mean age of the subjects was 56.7 ± 1.13 years. The diagnosis of ischemic heart disease was made on the basis of WHO 2018 diagnostic criteria based on the results of patient complaints, anamnesis, objective examination and laboratory instrumental examinations. Diseases of the pancreas of the main group were studied based on standard clinical-instrumental examinations. Of the 32 patients in this group, all (100%) had a comorbid condition with ischemic heart disease and chronic pancreatitis, and 6 of them (18.75%) had concomitant obesity. The main ultrasound signs of chronic pancreatitis include deformation and enlargement of the pancreas, hyperechoicity and heteroexogenicity of the parenchyma. According to the results of the analysis, in 83.6% of cases, there were changes in ultrasound examination, and in 16.4% of cases, there were changes in blood biochemistry and analysis. The study did not include patients with complications of acute abdominal and gastrointestinal diseases, acute coronary syndrome, chronic heart failure, and patients with myocardial infarction and ischemic stroke.

III. RESULTS

Holter monitoring revealed changes in the electrocardiogram in 40 out of 62 patients, which is 64.5%. Sinus tachycardia was detected in 22.8% of patients with ischemic heart disease not accompanied with gastrointestinal disorders, and it was statistically significant (p <0.05). Differences in statistical data of patients in this group (r <0.01) based on S/T elevation. Sinus tachycardia (38.9%) and other parameters were significantly different (r <0.05) when co-morbid with cardiovascular and digestive tract diseases, (Table 2).
Sinus tachycardia 22.8 38.9
Sinus bradycardia 7.0 11.1
Sinus arrhythmia 7.0 9.9
Rhythm control migration 2.8 12.1
Single VE 14.1 38.9
Double VE 4.2 16.7

Conduction disorders
Sinoatrial block 4.2
AV block 5.6
Right bundle branch block 5.3
Left bundle branch block 1.3

Changes in the ventricles
S/T segment depression 8.5 11.1
T tooth alternation 5.6 5.6

*VE- ventricular extrasystole. *SVE- supraventricular extrasystole.

IV. DISCUSSION

It is known that patients with cardiovascular disease, especially CHD and stable tension angina, have a negative impact on life expectancy and quality. Digestive tract diseases, various degrees of digestive dysfunction in chronic pancreatitis, changes in the absorption of trace elements and electrolytes, as well as the impact on the electrophysiological function of the myocardium are reflected in the daily holter monitoring. According to E.R. Erenchina and co-authors, pulse formation and conduction disturbances in patients with UIC and chronic pancreatitis are 14.3% higher than in the control group [9]. In our study, this figure was 16.1%, indicating that the results were similar.

V. CONCLUSION

1 Although the difference between the groups was not statistically significant, patients with CHD and chronic pancreatitis were found to have higher Holter monitoring scores than the control group.

2 No differences were found in the one-time ECG examination taken in the main group of patients. During the daily Holter monitoring, the differences in pulse generation disturbances and conduction disturbances were particularly noticeable.

REFERENCES: