



## **STUDY AND ASSESSMENT OF RISK FACTORS FOR THE DEVELOPMENT OF CHRONIC PANCREATITIS.**

**Azizbek F.Valijonov** 5th year student of the medical faculty of the Tashkent Medical Academy. Tashkent, Uzbekistan, [AzizbekValijonov97@gmail.com](mailto:AzizbekValijonov97@gmail.com);

**Nigora A.Akhmedova** Candidate of Medical Sciences, Associate Professor of the Department of Internal Diseases and Endocrinology No. 2, Tashkent Medical Academy. Tashkent, Uzbekistan; [nigora.ahmedova1963@gmail.com](mailto:nigora.ahmedova1963@gmail.com);

**Shirina A.Valijonova** 5th year student of the medical faculty of the Tashkent Medical Academy. Tashkent, Uzbekistan, [misirova-1998@mail.ru](mailto:misirova-1998@mail.ru);

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<p><b>Received:</b> December 8<sup>th</sup> 2022 <b>Accepted:</b> January 8<sup>th</sup> 2023 <b>Published:</b> February 10<sup>th</sup> 2023</p>	<p>One of the problems of modern gastroenterology is the timely diagnosis of chronic pancreatitis (CP). Its progressive course with a gradual increase in pain, exocrine insufficiency, and later endocrine pancreatic insufficiency significantly worsens the quality of life of patients, and also leads to large socio-economic losses associated with temporary and permanent disability in young and middle-aged patients. In the world, there is a tendency to increase the incidence of acute and chronic pancreatitis, over the past 30 years - more than 2 times. The difficulties of diagnosing CP are aggravated by the variety of etiological factors and the lack of a coordinated approach among doctors of various specialties and different schools in these matters. At the same time, when making a diagnosis, it is necessary to actively identify a possible cause, and not just a statement of the fact - the presence of pancreatitis</p>
<p><b>Keywords:</b> chronic pancreatitis, risk factors, alcohol intoxication.</p>	

### **OBJECTIVE**

1. To study the risk factors for the development of chronic pancreatitis among patients hospitalized in the gastroenterological department.
2. Determine the diagnostic status in patients with typical clinical manifestations of chronic pancreatitis.
3. Establish the significance of individual groups of risk factors in the study group.

### **MATERIALS AND METHODS:**

The study was of a retrospective observational nature, performed on the basis of the Multidisciplinary Clinic of the Tashkent Medical Academy on the basis of "SCAL" The case histories of patients who received treatment for chronic pancreatitis in 2020-2021 were analyzed. The study included case histories of patients who met the criteria for "definite", "probable" and "borderline" CP. The diagnosis of CP implies the presence of the typical clinical presentation of CP (eg, recurrent pancreatic attacks, abdominal pain) and the presence of the following disease criteria:

**"Definite"** CP is one or more of the following criteria: Calcification of the pancreas. Moderate or severe changes in the ducts (according to the Cambridge classification). Pronounced permanent exocrine pancreatic insufficiency (for example, steatorrhea,

which is significantly reduced when taking enzymes). Histological picture typical for CP.

**"Probable"** CP is one or more of the following criteria: Mild ductal changes (Cambridge classification) Pseudocyst(s) - persistent or recurrent Abnormal results on functional tests (fecal elastase-1, secretin test, secretin-pancreozymin test). Endocrine insufficiency (eg, abnormal glucose tolerance test results).

**"Borderline"** CP is CP with a typical clinical picture of pancreatitis, but in the absence of criteria for "probable" or "definite" CP. This form is expected during the development of the 1st episode of OP in the presence or absence of the following factors:

Family history of pancreatic disease (for example, other family members also had OP or pancreatic cancer); M-ANNHEIM risk factors are present

Based on the above criteria, 86 case histories of patients with CP were included in the study. Multiple risk factors according to the M-ANNHEIM classification were taken into account:

**Multiple Alcohol** – alcohol abuse

**Nicotine** - effect of nicotine

**Nutrition** – nutrition

**Heredity** – heredity



**Efferent pancreaticduct factors** – factors affecting the diameter of the pancreatic ducts and the outflow of pancreatic secretions

**Immunological factors** – immunological factors

**Metabolic factors** – various other and metabolic factors.

In our study, there were 53 men, 33 women. The average age of patients was  $54.08 \pm 11.71$  years (max 85 years, min 31 years)

The known duration of the disease was  $3.9 \pm 4.92$  years (min 1, max 30 years).

The diagnosis of the onset of CP according to the M-ANNHEIM system was based on the presence of one of the following events:

- 1) The first episode (attack) of abdominal pain.
- 2) For the first time frolicking acute pancreatitis.
- 3) The first appearance of clinical manifestations of exocrine or endocrine pancreatic insufficiency.

4) Ultrasound and computed tomography were used as imaging methods.

5) Exocrine insufficiency was stated in the presence of steatorrhea on scatological examination and / or diarrhea that improves with enzyme replacement therapy.

6) Endocrine insufficiency was determined by the level of glycated hemoglobin and / or the results of the glycemic profile, glucose tolerance test.

**RESULTS AND THEIR DISCUSSION:** The diagnostic status in patients of the study group, in accordance with the M-ANNHEIM criteria, was stated as definite in 28 patients (33%), probable - in 38 (44%), borderline - in 20 (23%). When analyzing risk factors for the development of CP, it was revealed that 2 patients had 1 risk factor each (metabolic (M) and violation of the outflow of pancreatic secretion (E)); 42 -2 risk factors; 34 - 3, 8 - 4 or more risk factors.

<b>Factors</b>	<b>Under 40, n=19</b>	<b>40-70 years old, n=53</b>	<b>Over 70 years old, n=14</b>
<b>Alcohol</b>	<b>10</b>	<b>27</b>	<b>0</b>
<b>Nicotine</b>	<b>9</b>	<b>21</b>	<b>0</b>
<b>Heredity</b>	<b>7</b>	<b>26</b>	<b>9</b>
<b>Nutrition</b>	<b>8</b>	<b>4</b>	<b>0</b>
<b>Efferent pancreaticduct factors</b>	<b>3</b>	<b>19</b>	<b>12</b>
<b>Immunological</b>	<b>4</b>	<b>12</b>	<b>0</b>
<b>Miscellaneous and metabolism</b>	<b>6</b>	<b>21</b>	<b>11</b>

1) In the age group under 40, the consumption of common risk factors was alcohol and nicotine, respectively 52 and 47% (see table). At the same time, in 7 patients (36%), CP developed against the background of dyslipidemia with a predominance of hypertriglyceridemia. In patients with atherogenic factors, the origin was determined from 5.7 to 15.

2) In 4 patients of the age group up to 40 years, CP was associated with autoimmune diseases: primary sclerosing cholangitis, Crohn's disease, psoriasis, Sjögren's syndrome.

3) In the age group from 40 to 70 years, the most common risk factors were alcohol and dyslipidemia with coexisting clinical manifestations of atherosclerosis, 50% and 49%, respectively.

4) In the age group over 70 years, the most common risk factors were factors affecting the outflow of

pancreatic secretion and various toxic and metabolic factors, including drugs, 85 and 78%, respectively.

**CONCLUSION:** Thus, in patients with the presence of a CP clinic, "definite" CP was detected only in 33% of patients, which is associated with a limited ability to visualize the pancreas using ultrasound and computed tomography. Optimal for such patients is a non-invasive study - magnetic resonance imaging and invasive - endoscopic retrograde cholecystopancreatography.

According to our data, alcohol is the most common etiological factor among patients with CP under the age of 70 years. At the age of over 70 years, in the vast majority of cases, we observed a combination of violations of the outflow of pancreatic secretion with toxic and metabolic effects as risk factors for the formation of CP.



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