EPIDEMIOLOGIC DATA IN ACUTE PANCREATITIS

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Abstract

From the pathology of the pancreas, without a doubt most of the researches were addressed to the acute pancreatitis, without reaching until the present to conclusions unanimous accepted regarding the different etiology, pathogenic, physiopathology, morphopathologic, clinical, paraclinical and therapeutic aspects. What was specified in the 21 century is that the acute pancreatitis is not a single disease but it could be defined as a complex syndrome, polymorph, rhapsodic, hardly.

Keywords: acute pancreatitis, paraclinical, morphopathologic.

INTRODUCTION

The pancreas is considered the most complex organ of the body, with the exception of the liver and the brain. Situated deeply, “in the dark”, hard to be accessed, for many years it was considered a kind of tabu even for the bravest surgeons.

Refusing to unveil its numerous secrets, this organ aroused the interest of anatomists, physiologists, biochemists and other scientists and clinicians along the centuries.

For the first time the term “pancreas” is found in the paper of Aristotel – Historia Animalium, written in 336 before Christ. Herophilus from Calcedonia (360-320 before Christ) describes many organs of which also the pancreas. Ruphos from Ephes talks about the pancreas, defining it: “the pancreas is a fleshy, fat and glandular organ, attached to the first part of the intestine”. Galen in his paper “De Usu Partium” affirms “from this reason, I believe that the omentum is attached to the spleen and to the part named pancreas.” Also Galen in his paper “De venarium arteriarumque diffecitione “ used another denomination for this organ” pancreas, which the others name KALIKREAS (beautiful body)”.

From the pathology of the pancreas, without a doubt most of the researches were addressed to the acute pancreatitis, without reaching until the present to conclusions unanimous accepted regarding the different etiology, pathogenic, physiopathology, morphopathologic, clinical, paraclinical and therapeutic aspects. What was specified in the 21 century is that the acute pancreatitis is not a single disease but it could be defined as a complex syndrome, polymorph, rhapsodic, hardly.
OBJECTIVES

1. Identification of the cases of acute of pancreatitis that appeared for the patients hospitalized at the Clinical County Hospital from Oradea;
2. Determining the incidence of acute pancreatitis, reported to the total number of admissions, the degree of severity, the surgical interventions, the origin, the age, the sex, the occupation.

MATERIAL AND METHODS

We performed a retrospective, prospective study, for a number of 269 patients, with the diagnosis of acute pancreatitis, respectively 149 patients with the diagnosis of easy acute pancreatitis and 120 patients with severe pancreatitis hospitalized in the surgical department of the Clinical County Hospital from Oradea.

The period for which it was extended the research is of 5 years, in the period of 01.01.2005-31.12.2009.

For the study it was used the archive of the Clinical County Hospital from Oradea, respectively the computerized database of the unit.

It were used the anamnestic data and of the identification of the patients from the observations papers.

The research method that was used is the statistic study that included: the determination of the OR quota report (having an interval of confidence of 95%), the hi square test, respectively the Fisher test (for the determination of the significance degree).

The processing of the data was performed with the help of the program Microsoft Office Excel 2003.

The representation of the results was performed with the help of graphics and tables.

RESULTS

In the period of 01.01.2005-31.12.2009 were hospitalized 117680 patients with acute pancreatitis, admitted in the surgical departments of the Clinical County Hospital from Oradea.

The Evolution of the number of cases of AP (Acute pancreatitis) from the total of hospitalizations.
Table 1

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of hospitalizations</th>
<th>PAU</th>
<th>PAS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nr.</td>
<td>%</td>
<td>Nr.</td>
<td>%</td>
</tr>
<tr>
<td>2005</td>
<td>20566</td>
<td>23</td>
<td>1,12</td>
<td>26</td>
</tr>
<tr>
<td>2006</td>
<td>22617</td>
<td>16</td>
<td>0,71</td>
<td>35</td>
</tr>
<tr>
<td>2007</td>
<td>24756</td>
<td>31</td>
<td>1,25</td>
<td>10</td>
</tr>
<tr>
<td>2008</td>
<td>25126</td>
<td>26</td>
<td>1,03</td>
<td>12</td>
</tr>
<tr>
<td>2009</td>
<td>24615</td>
<td>53</td>
<td>2,15</td>
<td>37</td>
</tr>
<tr>
<td>TOTAL</td>
<td>117680</td>
<td>149</td>
<td>1,27</td>
<td>120</td>
</tr>
</tbody>
</table>

PAU – Easy Acute Pancreatitis
PAS – Severe Acute Pancreatitis

In the period 2005-2008 it can be seen a decrease trend of the AP weight in the total of hospitalizations (from 2,38‰ to 1,51‰), and in 2009 the weight was almost doubled related to the weight of the previous period (3,66‰ related to 1,92‰ in the period 2005-2008).
The Evolution of the number of cases of AP (Acute pancreatitis) depending on the degree of severity:

Table 2

<table>
<thead>
<tr>
<th>Year</th>
<th>PAU</th>
<th>PAS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>2005</td>
<td>23</td>
<td>46,9</td>
<td>26</td>
</tr>
<tr>
<td>2006</td>
<td>16</td>
<td>31,4</td>
<td>35</td>
</tr>
<tr>
<td>2007</td>
<td>31</td>
<td>75,6</td>
<td>10</td>
</tr>
<tr>
<td>2008</td>
<td>26</td>
<td>68,4</td>
<td>12</td>
</tr>
<tr>
<td>2009</td>
<td>53</td>
<td>58,9</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>149</td>
<td>55,4</td>
<td>120</td>
</tr>
</tbody>
</table>

From the analysis of the evolution of the report between PAU and PAS, in 2005 is registered a report almost equal between the two types (46,9% versus 53,1%, report 1:1,1). In 2006 the report PAU/PAS was of 1:2,2 (31,4%, versus 68,6%, in 2007 and 2008, the reports PAU/PAS were of 3,1:1, respectively 2,1:1 (75,6%, versus 24,4%, respectively 68,4%, versus 31,6%), and in 2009 this report was of 1,4:1 (68,9%, versus 41,1%).

The Evolution of the prevalence of the AP operated from the total of surgical interventions:

Table 3

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of surgical admissions</th>
<th>No. of operated AP</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>9458</td>
<td>22</td>
<td>2,33</td>
</tr>
<tr>
<td>2006</td>
<td>15342</td>
<td>32</td>
<td>2,09</td>
</tr>
<tr>
<td>2007</td>
<td>13130</td>
<td>27</td>
<td>2,06</td>
</tr>
<tr>
<td>2008</td>
<td>14397</td>
<td>28</td>
<td>1,94</td>
</tr>
<tr>
<td>2009</td>
<td>18787</td>
<td>42</td>
<td>2,24</td>
</tr>
<tr>
<td>TOTAL</td>
<td>71414</td>
<td>151</td>
<td>2,11</td>
</tr>
</tbody>
</table>

In the period 2005-2008 the weight of the case of operated AP from the total of surgical interventions decreased from 2,33‰ to 1,94‰, increasing in 2009 to 2,24‰.
From the total cases with AP, 56,1% were operated, the smallest percentages were in years 2005 (44,9%) and 2009 (46,7%), being registered a peak in 2008 (73,7%).

The degree of severity:

Graphic no. 2. The Distribution of the cases depending on the severity degree of AP.

DISCUSSIONS.

Between the years 2005-2009 were hospitalized 117680 patients with acute pancreatitis at the Clinical County Hospital from Oradea, on the surgical departments.

It is remarked a decreasing trend of the AP weight from the total of hospitalized cases (from 2,38‰ to 1,51‰), in the period 2005-2008 and in 2009 the weight was almost doubled related to the weight of the previous period (3,66‰ related to 1,92‰ in the period 2005-2008).

The report between PAU and PAS, in 2005 is almost equal between the two types (46,9% versus 53,1%, report 1:1,1), in 2006 the report PAU/PAS was of 1:2,2 (31,4%, versus 68,6%, in 2007 and 2008, the reports PAU/PAS were of 3,1:, respectively 2,1:1 (75,6%, versus 24,4%, respectively 68,4%, versus 31,6%), and in 2009 this report was of 1,4:1.

On the level of the Bihor county the incidence of acute pancreatitis is much larger (39 cases / 100.000 people/year). Regarding the incidence specific for sexes from our study it can be seen that the men are the most affected by the acute pancreatitis, with a sex ratio men:women = 1,4:1.

From the study we made at the Clinical County Hospital from Oradea, we have seen a decreasing trend of the AP weight from the total cases hospitalized (from 2,38‰ to 1,51‰), in the period 2005-2008 and in 2009 the weight was almost doubled related to the weight of the previous period (3,66‰ related to 1,92‰ in the period 2005-2008).

Comparing the personal results with the international results it can be concluded that PAU is the form that predominates at the patients.
From the point of view of the origin, we observed that the majority of the patients which developed acute pancreatitis come from the urban background (53,2%).

From the point of view of the occupation the majority of the patients with AP (25,3%) were agriculturists, followed by almost 20% of the clerks (19,7%) and pensioners (19,3%).

In the period 2005-2008 the weight of the case of operated AP from the total of surgical interventions decreased from 2,33‰ to 1,94‰, increasing in 2009 to 2,24‰, which can be argued by the increase in parallel of the number of cases reported in the respective year.

From the total cases with AP, 56,1% were operated, the smallest percentages were in the years 2005 (44,9%) and 2009 (46,7%), being registered a peak in 2008 (73,7%).

From the personal statistical analysis it results that most of the cases of AP were registered at the age group of 41-50, for PAU, and for PAS (23,5%, respectively 32,5%), the average age being insignificantly larger for patients PAU than those with PAS (47,1±7,5 years for PAU, respectively 46,4±6,8 years for PAS) (p=0,174).

Depending on the severity of AP, comparing the distribution on months of the cases, we remarked that there are significant differences between PAU and PAS (p<0,001), for PAU is registered over 10% of the cases in the months February (14,1%), May (11,4%) and October (15,4%), and for PAS in the months January (14,2%), June (10,8%), October (12,5%) and November (15,0%).

Comparing the cases of acute pancreatitis/season, over 55% of the cases are registered in the autumn and in the winter, the autumn being the season with most of the cases, a possible explanation being the increase of alcohol consumption in this period.
CONCLUSIONS.

The most increased incidence of AP was registered in 2009 when it was doubled, related to the weight of the previous period (3.66‰ compared to 1.92‰ in the period 2005-2008).

The correlation between the incidence of the sickening and the environment of origin urban/rural is insignificant.

Most of the case of PAU/PAS were registered in 2008, the reports PAU/PAS being of 3:1:1 respectively 2:1:1 (75.6% versus 24.4%).

AP is a pathology that affects mostly the men, the report between the two sexes being of 1.4♂:1♀.

Most of the case of AP were registered at the age group of 41-50, for PAU, and for PAS (23.5%, respectively 32.5%).

Depending on the distribution on months of the cases with PAU and PAS, we remarked that there are significant differences between PAU and PAS (p<0.001), for PAU are registered over 10% of the cases in the months February (14.1%), May (11.4%) and October (15.4%), and for PAS in the months January (14.2%), June (10.8%), October (12.5%) and November (15.0%).
REFERENCES