HISTOMORPHOLOGICAL, CLINICAL AND PARACLINICAL INVESTIGATIONS OF PSEUDOTUMORAL PANCREATIC PROCESSES

PHD THESIS - ABSTRACT

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# CONTENTS

**FOREWORD** ..................................................................................................................3

**CONTENTS** ...................................................................................................................5

**CHAPTER I. ANATOMY OF THE DUODENO – PANCREATIC LODGE** .................8

- Pancreatic arteries: controversies in terminology, origin and distribution ............
- Particularities of venous drainage .............................................................................9
- Microcirculation of the pancreas .............................................................................10
- Innervation of the pancreas .....................................................................................10

**CHAPTER II. HISTOPHYSIOLOGICAL ASPECTS OF THE PANCREAS** ............12

**CHAPTER III. ETIPATHOGENESIS AND NATURAL EVOLUTION OF ACUTE AND CHRONIC INFLAMMATORY LESIONS OF THE PANCREAS** ..................14

1. **ACUTE PANCREATITIS** ....................................................................................14
   - Aetiology ...........................................................................................................14
   - Pathogenesis – physiopathology ....................................................................15
   - Morphopathological alterations ....................................................................19

2. **CHRONIC PANCREATITIS** ............................................................................20
   - Aetiology ...........................................................................................................21
   - Pathogenesis ...................................................................................................22
   - Hypothesis of acute - chronic pancreatic filiations (necrosis - fibrosis sequence) .24
   - Chronic pancreatitis – distinctive entity ............................................................24
   - Treatment aspects of chronic pancreatitis .....................................................24
   - Medical treatment .........................................................................................24
   - Endoscopic treatment ...................................................................................25
   - Surgical treatment ..........................................................................................25

3. **PANCREATIC CELL METAPLASIA** .................................................................28

**PERSONAL CONTRIBUTIONS** ...................................................................................30

**CHAPTER IV. MATERIAL AND METHOD** .........................................................31

1. **Retrospective study** ..........................................................................................31
2. **Retrospective study** ..........................................................................................32
3. The analysis of selected cases of chronic pancreatitis .........................................33
4. Histopathological study of selected cases of chronic pancreatitis .........................36

**CAPITOLUL V. RESULTS AND DISCUSSIONS** 39

1. RETROSPECTIVE STUDY ...................................................................................39
The proposed study aimed the retrospective and prospective investigation of morphological and immunohistochemical changes in case of pancreatic pseudo lesions and their corroborated with clinical, imagistic, laboratory data and intraoperative characteristics, as well as postoperative follow up of histopathologically confirmed lesions. In case of conservative surgical interventions the residual pancreatic tissue was also monitored by laboratory and imaging procedures.

In order to preserve the pancreatic tissue functional during the treatment of pseudotumoral chronic pancreatitis, pancreatic parenchymal changes - metaplasias were assumed to compensate for affected functions by chronic inflammatory processes.

The ultimate goal was the anatomical-clinical definition of these pseudotumoral lesions of the pancreas respectively the medical and/or surgical evaluation of an optimal therapeutic conduct.

**MATERIAL AND METHOD**

**Retrospective study:** a retrospective analysis of 328 biopsy and operatory pieces was performed. These pieces were previously diagnosed at the Pathology Department, Targu Mures during 2000 - 2002. The incidence of pancreatic inflammatory lesions and tumors was studied on 221 pieces, based on the anatomo-pathological processing of the pieces received from different Surgical Clinics of Târgu.Mureş.

**Retrospective study:** a prospective study (not randomized), based on the casuistry of the Surgical Clinics of Târgu.Mureş, was performed in 185 patients during 2003 - 2005 and cases of acute/chronic pancreatitis respectively pancreatic tumors were analyzed.

**The study of selected cases of chronic pancreatitis:** there were 59 cases of chronic pancreatitis studied (29 in the retrospective study and 30 in prospective study).

The Marseille-Rome classification was applied in order to categorize morphologically lesions detected by imaging methods.

The grade of the inflammatory process was assessed by applying the Cambridge classification.

In order to diagnose chronic pancreatitis a series of clinical and laboratory features were evaluated, which facilitate a **score of chronic pancreatitis**.
RESULTS AND DISCUSSIONS

1. Retrospective study

In the retrospective study we analyzed 328 pieces processed at the Pathology Department of Targu Mures during a period of three years (2000-2002), in 238 cases identifying diagnosed pancreatic lesions. The histopathological diagnosis was negative in 9 cases and in one case of ectopic pancreas with no atypias in the pancreatic tissue. The predominance of tumoral and pancreatic inflammatory lesions of the pancreas was evident in 185 cases. Compliance between clinical diagnosis (clinical, laboratory, surgical) and morphopathological diagnosis (final morphopathological examination) was found in 182 cases (55.48%) out of the total 328.

2. Retrospective study

In the framework of the prospective study performed in 185 cases the predominance of tumoral lesions was present in 117 cases, whereas the incidence of inflammatory acute processes was lower, but relatively constant in 38 cases and chronic in 30 cases.

Presumptive diagnosis (based on anamnesis and clinical examination data) presented a compliance with the results of paraclinical examinations in 169 cases (91.35%).

Preoperative diagnosis (clinical, laboratory, imagistic investigations) presented compliance with the intraoperative aspect in 172 cases (92.97%).

The diagnosis established based on clinical examinations, laboratory data and intraoperative exploration, presented a compliance of 94% (in 174 cases) with the histopathological results.

Out of the 59 selected patients, 47 underwent surgical intervention and 12 patients were applied endoscopic treatment.

The diagnosis of chronic pseudotumoral pancreatitis (clinical, laboratory, imagistic, intraoperative diagnosis) complied with the result of the final histopathological examination.

CONCLUSIONS


• In the framework of the retrospective study we analyzed 328 pieces of the Pathology Department of Targu Mures, collected during a period of three years (2000-2002), where diagnosed pancreatic lesions were identified in 238 cases. The
histopathologic diagnosis was negative in 9 cases and there was one case of ectopic pancreas with no atypias in the pancreatic tissue. The predominance of tumoral and pancreatic inflammatory lesions of the pancreas was evident in 185 cases.

- The studied cases evolved in an unspecified and unorganized clinical setting.
- Imagistic investigations (ultrasonography and computed tomography) of the duodeno-pancreatic region was a key element in establishing the diagnosis.
- Compliance between clinical diagnosis (clinical, laboratory, surgical) and morphopathological diagnosis (final morphopathological examination) was found in 182 cases (55.48%) out of the total 328 studied pieces.

RETROSPECTIVE STUDY (2003 - 2005)

- The predominance of tumoral and inflammatory lesions of the pancreas is evident and can be demonstrated in the analyzed casuistry.
- **Presumptive diagnosis** (based on anamnesis and clinical examination data) presented a compliance with the results of paraclinical examinations in 169 cases (91,35%).
- **Preoperative diagnosis** (clinical, laboratory, imagistic investigations) presented compliance with the intraoperative aspect in 172 out of the total 185 cases (92,97%).
- The **diagnosis** established based on clinical examinations, laboratory data and intraoperative exploration, presented a compliance of 94% (in 174 cases out of the total 185) with the histopathological results.
- The studied cases (59 patients) evolved in an unspecified and unorganized clinical setting.
- Laboratory analysis led us to exocrine and endocrine insufficiency of the pancreas, associated with the phenomena of cholestasis and denutrition.
- Discovering that there are gaps in the functional exploration of the pancreas we observed the necessity of developing investigation algorithms
- Imagistic investigations of the duodeno-pancreatic region is a key element in developing the diagnosis of chronic pancreatitis.
- Endoscopic retrograde colangiopancreatography (ERCP) was the most sensitive method for diagnosing chronic pancreatitis, which permitted to perform imagistic morphological diagnosis, essential to establish the diagnosis of chronic pancreatitis.
- By imagistic investigations performed in 59 selected patients, we emphasized characteristic changes present in the process of chronic inflammation, which pleaded
for chronic inflammatory lesions, but without the certainty of a differential diagnosis, regarding the presence or coexistence of a pancreatic neoplastic process.

- Medical or surgical treatment that keeps the pancreatic tissue functional provides a favourable prognosis for patients with chronic pancreatitis.
- We regard evacuation puncture and the drainage of pancreatic lodge under ultrasonography guidance or helical CT as alternative methods of treatment in case of acute and chronic pancreatitis.
- Surgical intervention was mostly indicated in cases when abdominal pain was resistant to medical treatment and it was impossible to exclude the presence of pancreatic neoplasm.
- Intraoperative explorations must be backed up by extemporaneous histopathological examination regardless the surgeon’s opinion about the diagnosis.
- The diagnosis of chronic pseudotumoral pancreatitis (established by clinical, laboratory, imagistic and intraoperative investigations) complied with the final histopathological results.
- **PC diagnosis is a morphopathological diagnosis**, which also performs the differentiation of pancreatic lesions from a neoplastic formation.
- Early pancreatic tissue regeneration processes can persist late in chronic pancreatitis. In the human pancreatic matrix tissue regeneration processes occur in focal points, which seem to provide the precursor cells for the exocrine compartment as well as for the endocrine compartment of the pancreatic parenchyma in chronic inflammatory processes.
- The fact that some cell populations present coexpression for amylase and chromogranin suggests the presence of progenitor cells for both exocrine compartment and endocrine compartment of the pancreatic parenchyma in chronic inflammatory processes of the human pancreas.