MEDICINE AND PHARMACY

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CONSERVATIVE TREATMENT OF CHRONIC PANCREATITIS

Introduction

Chronic pancreatitis (CP) is caused by progressive inflammation and irreversible damage to the structure and function (exocrine and endocrine) of the pancreas. Chronic heavy alcohol use is the most common cause, followed by pancreatic ductal obstruction. Clinically, pancreatic exocrine insufficiency becomes apparent only after 90% of the parenchyma has been lost [1].

CP is a condition presenting diagnostic and treatment problems, by late detection of pancreatic disorders and by difficult approach to pain syndrome at a certain stage. The prognosis for PC is general reserved, the evolution being burdened by the progression towards exocrine and endocrine pancreatic insufficiency and numerous complications. It is important to know and application of the recommendations of the International Guidelines to improve the diagnosis and treatment of this disease [2].

Material and methods of research

The literature review between 2010-2020 years was analyzed. We have used as well as the latest specialized publications, which are in the databases of the electronic libraries PubMed, Medline, and Hinari, using the following keywords:

"conservative treatment of chronic pancreatitis", "management of chronic pancreatitis", "non-operative treatment of chronic pancreatitis".

Discussion

The goals of treatment of chronic pancreatitis can roughly be divided into three categories: pain management, correction of pancreatic insufficiency (for example fat malabsorption and diabetes) and treatment and prevention of complications of pancreatitis (pseudocysts, fistulae, duodenal or biliary obstruction, pancreatic ascites, splenic vein thrombosis, and pseudoaneurysms [3].

Pain therapy. Currently, evidence-based protocols for the treatment of pain in patients with chronic pancreatitis do not exist. Owing to the complexity of the disease to enable optimal tailored treatment of patients with chronic pancreatitis, it is important to assess clinical data (for example, pain symptoms and risk factors), pancreatic function (endocrine and exocrine) and imaging data (for example, enlarged pancreatic head, ductal dilatation and local complications).

To begin with, medical treatment starts with lifestyle and dietary advice and efforts to achieve alcohol and smoking cessation, which is suggested to mitigate disease progression. Tramadol is commonly used for this purpose in dosages of 200 to 400 mg daily, although higher dosages are given to some patients. More potent narcotics are often required, and it is appropriate to slowly increase potency and frequency, with a goal of reducing but not eliminating pain. A number of other agents are given with opioids to manage chronic pain syndromes. These include tricyclic antidepressants, selective serotonin reuptake inhibitors, serotonin-norepinephrine reuptake inhibitors, and gabapentoids. Moreover, only pregabalin has been studied in a randomized controlled trial in patients with chronic pancreatitis [4]. Patients treated with pregabalin (up to 300 mg twice daily) had reduced pain compared with those given placebo and were able to reduce opioid use. Side effects were more common in the pregabalin group (lightheadedness or a feeling of being drunk). Preliminary studies suggest that pregabalin inhibits central sensitization. It is not clear whether other adjunct agents are equally effective or if combinations of these agents are more effective. Nonetheless, use of adjuvant agents is reasonable for patients who require opioids for pain control.

The majority of patients require pain medication, including nonopioid and opioid analgesics, with a risk that some patients will develop opioid addiction and opioid-induced hyperalgesia [5]. Nusrat et al. reformed a large retrospective cohort study of 219 patients with chronic pancreatitis. Slightly more than half of the patients (n=112) had opioid prescriptions. Addiction and hyperalgesia were not assessed in these patients. The study highlights how often patients with chronic pancreatitis use opioids [6, 7]. In patients with poor control of pain, medical treatment should be optimized together with a pain specialist.

Correction of pancreatic insufficiency. Patients with exocrine pancreatic insufficiency can be treated with pancreatic enzyme replacement therapy (PERT). For optimal treatment the dose and timing of PERT should depend on the fat content of the meal. Doses of 25.000–75.000U of lipase per meal and 10.000−25.000U for snacks have been recommended. When symptoms of exocrine insufficiency persist, use of gastric secretion inhibition by means of a proton pump inhibitors (PPI) is recommended. However, the role of PERT in reducing pain is debatable. 10 small trials have been conducted, but study design and patient selection are so diverse that the results of the studies cannot be pooled to draw conclusions [8].

Octreotide has been studied in 4 randomized trials with mixed results and is rarely used. Although enzyme therapy may not provide substantial benefit, it is often tried because of its safety and the lack of other highly effective treatments. The effects of antioxidants were tested in 2 relatively large randomized trials [9]. Although serum levels of antioxidants increased in both trials, they produced different results for the outcome of pain relief. The trials included different types of patients; the trial with the positive results included much younger patients with mainly idiopathic pancreatitis, whereas the trial that produced negative results included older patients with alcohol and smoking as the primary etiologies [8]. Antioxidants might reduce pain, but further studies are needed to define the patient population most likely to respond.

There is one form of chronic pancreatitis that has specific medical therapy. Autoimmune pancreatitis occurs in 2 forms [9]. Type 1 is characterized by the presence of immunoglobulin G4 –positive plasma cells in affected organs, and some

patients have increased serum levels of immunoglobulin G4. The most common presentation is obstructive jaundice, but a variety of organs can be involved, including salivary glands, bile ducts, kidneys, and lungs. Type 2 is not associated with altered levels of immunoglobulin G4 and involves only the pancreas. Both types of autoimmune pancreatitis respond to corticosteroid therapy, although relapse can occur and require other immunosuppressive therapies. Corticosteroid therapy, if promptly initiated, may prevent the development of exocrine or endocrine insufficiency.

Conclusions: Conservative treatment of chronic pancreatitis includes the management of multiple and complex medical comorbidities that must be understood and addressed in a specialized multidisciplinary context.

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