

Neuropharmacological Factors, Biliary Motility and Pancreatitis: Is Clonidine a True Clinical Option?

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In their comments to my editorial [1], Dr. Lechin and co-workers [2] emphasized the role of the alpha-adrenergic agonist in the management of acute pancreatitis. From the results of their animal studies, they suggest that the alpha₂ agonist-clonidine can suppress salivary and pancreatic exocrine secretion, not only during the basal condition, but also after administration of the excitatory hormones, secretin or pancreozymin.

By using intramuscular injections of clonidine, they have successfully treated some patients who suffered from acute pancreatitis, often obtaining dramatic improvement within one hour. However, these clinical effects have not yet been confirmed by double-blind trials.

I agree with Dr. Lechin and co-workers that most of the patients with acute non-biliary pancreatitis can be resolved through pharmacological treatment. Since acute pancreatitis is a disease with heterogeneous etiologies and an obscure pathogenesis, there is as yet no single proven drug that ameliorates the ongoing pancreatic inflammation after the release of the pancreatic enzymes. The pharmacological agents such as protease inhibitor, somatostatin, and clonidine may probably help to improve the clinical symptoms in the patients with less severe acute pancreatitis and to prevent severe pancreatic necrosis. In patients with transient sphincter of Oddi dysfunction, somatostatin may facilitate the pancreatic drainage and inhibition of pancreatic secretion, but it is expensive and short-acting. Intramuscular injection or transdermal clonidine may also provide the same effect, but side effects such as

somnolence, irritability, constipation, and pseudo-obstruction of the intestine have been reported. In addition, about 80% of patients with mild acute pancreatitis recover by using supportive care only, thus further controlled studies are still necessary to confirm the effects of any pharmacological agents before clinical use.

Key words Adrenergic alpha-Agonists; Biliary Tract; Clonidine; Neuropharmacology; Oddi's Sphincter; Pancreatic Juice; Pancreatitis, Acute Necrotizing

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