

PALLIATION OF PAIN IN CHRONIC PANCREATITIS

Use of Neural Blocks and Neurotomy

Gilbert Y. Wong, MD, George H. Sakorafas, MD,
Gregory G. Tsiotos, MD, and Michael G. Sarr, MD

ORIGIN OF PAIN IN CHRONIC PANCREATITIS

The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage."⁴⁴ In patients with acute or chronic pancreatitis, epigastric pain that radiates to the back is usually the primary clinical symptom and first presenting complaint.⁴⁰ The quality of the pain is frequently described as constant, gnawing, and visceral.

The causes and mechanisms of pain in pancreatitis are not yet fully understood. The neurophysiologic pain pathways involve the transmission of visceral afferent nociceptive information through the splanchnic nerves, sympathetic nervous system, spinal cord, and ultimately, to the brain. Pain of pancreatitis, however, is likely to be complex, and may have other influencing factors.⁴⁰ Several theories have been proposed to describe the cause of pain associated with pancreatitis.

The pancreas is a highly innervated, visceral organ. The pancreatic nerves (all autonomic) that innervate this organ⁴⁰ seem to be sensitive to chemical and mechanical stimuli.²⁰ These pancreatic nerves can transmit

From the Departments of Anesthesiology (GYW) and Surgery (GHS) and Gastroenterology Research Unit, Division of Gastroenterologic and General Surgery (MGS), Mayo Clinic and Foundation; and the Mayo Medical School (MGS), Rochester, Minnesota; and the Department of Surgery, University of Missouri, Truman Medical Center, Kansas City, Missouri (GGT)