

COLLABORATIVE MANAGEMENT

Care of the patient with chronic pancreatitis involves several members of the interdisciplinary team. The primary health care provider, gastroenterologist, or pancreatic specialist diagnoses and manages the disorder. The nurse educates the patient about the disorder, guides him in making necessary lifestyle modifications, and works with him to control pain. The social worker refers the patient to support groups for alcohol counseling and explores financial concerns. The dietitian assesses the patient's nutritional status and recommends a nutritional plan, such as a low-fat, high-carbohydrate diet with pancreatic enzyme replacement. The physical therapist plans an activity program to maintain the patient's muscle strength and tone and prevent deconditioning; the occupational therapist teaches energy conservation skills. An alcohol counselor can help the patient abstain from drinking and provide support.



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Chronic pancreatitis

Pancreatitis—inflammation of the pancreas—occurs in acute and chronic forms and may be due to edema, necrosis, or hemorrhage. In men, this disease is commonly associated with alcoholism, trauma, or peptic ulcer; in women, it's linked to biliary tract disease. Patients with acquired immunodeficiency syndrome (AIDS) have a higher incidence of pancreatitis.

The prognosis is good when pancreatitis follows biliary tract disease, but poor when it follows alcoholism. Mortality rises as high as 60% when pancreatitis is associated with necrosis and hemorrhage.

CAUSES

Chronic pancreatitis usually is associated with alcoholism (in over half of all patients) but also can follow hyperparathyroidism (causing hypercalcemia), hyperlipidemia or, infrequently, gallstones, trauma, prolonged fasting, or peptic ulcer. Inflammation and fibrosis cause progressive pancreatic insufficiency and eventually destroy the pancreas.

Other causes of pancreatitis are biliary tract disease, pancreatic cancer, trauma, or use of certain drugs, such as glucocorticoids, sulfonamides, chlorothiazide, and azathioprine. This disease also may develop as a complication of mumps or hypothermia. Rare causes are stenosis or obstruction of the sphincter of Oddi, hemochromatosis, vasculitis, or vascular disease, viral infections, mycoplasmal pneumonia, and pregnancy.

Source: *Managing Chronic Disorders*, Lippincott Williams & Wilkins, 2006

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PATHOPHYSIOLOGY

In chronic pancreatitis, persistent inflammation produces irreversible changes in the structure and function of the pancreas. It sometimes follows an episode of acute pancreatitis. Protein precipitates block the pancreatic duct and eventually harden or calcify. Structural changes lead to fibrosis and atrophy of the gland. Growths called *pseudocysts* contain pancreatic enzymes and tissue debris. An abscess results if pseudocysts become infected.

If pancreatitis damages the islets of Langerhans, diabetes mellitus may result. Sudden severe pancreatitis causes massive hemorrhage and total destruction of the pancreas, manifested as diabetic acidosis, shock, or coma.

ASSESSMENT FINDINGS

Symptoms of chronic pancreatitis include constant dull pain in the midepigastrium, left chest, and back with acute episodes aggravated by meals and relieved by bending forward. Other findings include anorexia, severe weight loss, and hyperglycemia. The patient may report bulky, foul-smelling stools, nausea, and vomiting. The area around his navel may appear bluish with bruising. Vital signs may reveal tachycardia, hypotension, and a low-grade fever. The patient's abdomen may be tender and swollen.

DIAGNOSIS

- Serum amylase, trypsin, and lipase levels may be elevated during acute attacks but may be normal at other times.
- Pancreatic polypeptide levels may be reduced following a high-protein meal in advanced chronic pancreatitis.
- Erythrocyte sedimentation rate may be elevated.
- Serum glucose levels may be elevated, indicating the development of diabetes.
- Serum calcium, potassium, and magnesium levels may be decreased.
- Abdominal X-rays or computed tomography scans show dilation of the small or large bowel or calcification of the pancreas.

- Endoscopic retrograde cholangiopancreatography identifies ductal system abnormalities, such as calcification or strictures, and helps differentiate pancreatitis from other disorders, such as pancreatic cancer.

COMPLICATIONS

- Diabetes mellitus
- Fluid and electrolyte imbalance
- Gallbladder disease
- Gastrointestinal bleeding, from peptic ulcers or variceal bleeding
- Hypovolemia
- Malabsorption and steatorrhea
- Pancreatic cancer
- Pseudocyst and fistula formation
- Splenic and portal vein obstruction
- Stenosis of the common bile duct
- Weight loss

TREATMENT

- Analgesics are administered to control severe pain.
- Pancreatic enzymes taken at meal times decrease pancreatic enzyme secretion and reduce steatorrhea.
- Insulin or oral hypoglycemics may be needed to control hyperglycemia.
- A low-fat, high-carbohydrate diet may help control steatorrhea.
- Surgical repair of biliary or pancreatic ducts or the sphincter of Oddi may be required to reduce pressure and promote the flow of pancreatic enzymes.
- Alcohol cessation is important to improve prognosis.

Teaching about chronic pancreatitis

Remember these key points when teaching your patient about chronic pancreatitis:

- Teach about the disorder, including its causes, symptoms, and treatments.
- Discuss warning signs and symptoms of complications, such as diabetes and variceal bleeding, that require immediate medical attention.
- If the patient is having surgery, explain the surgical procedures and what to expect in the preoperative and postoperative periods.
- Teach about prescribed medications, including their names, indications, dosages, adverse effects, and special considerations.
- Explain dietary changes and the need for taking pancreatic enzymes.
- Discuss the importance of avoiding alcoholic beverages and joining a support group such as Alcoholics Anonymous, if needed.
- Talk about pharmacologic and nonpharmacologic measures to relieve pain.
- Explain the need for thorough perineal care to prevent skin breakdown.