

Chronic pancreatitis (CP) is a progressive inflammatory process that results in irreversible scarring of the pancreas. Abdominal pain is often the most debilitating symptom of CP and may be complicated by depression, social avoidance, and narcotic dependence.

In recent years, endoscopic ultrasound (EUS) has been used to perform celiac plexus block (EUS-CPB) and neurolysis (EUS-CPN). EUS-CPB is generally done for painful benign diseases (most commonly chronic pancreatitis); whereas EUS-CPN has greater risk of tissue injury and is generally done as a palliative maneuver for malignant diseases. The endoscopic technique may be safer than percutaneous methods, since it is performed under direct ultrasound visualization and uses color flow Doppler to prevent injury to blood vessels.

The initial approach to EUS-CPB/N was plexus injection. In this approach the needle is passed through the body of the stomach adjacent the celiac artery into the retroperitoneal space. The injectate (bupivacaine or alcohol) is injected and spreads through the retroperitoneal space, effectively “bathing” all the ganglia.

Direct ganglia injection is a newer technique (Video). The needle is inserted under EUS guidance directly into the ganglia. The solution is injected, producing an echogenic pattern within the ganglion.

From a retrospective study with EUS-guided celiac plexus neurolysis (EUS-CPN), direct injection in the ganglia was the best predictor of pain relief (1). Patients with visible ganglia were >15 times more likely to respond.

In a clinical trial, patients were randomized to undergoing either EUS-celiac ganglia neurolysis (EUS-CGN) or standard EUS-CPN reported higher treatment response rate and complete response rate in the EUS-CGN group (2).

<http://endoscopiaterapeutica.com.br/wp-content/uploads/2016/08/TS.mp4>

1. Ascunce G, Ribeiro A, Reis I et al. EUS visualization and direct celiac ganglia neurolysis predicts better pain relief in patients with pancreatic malignancy (with video). *Gastrointest Endosc* 2011; 73: 267–274
2. Doi S, Yasuda I, Kawakami H, et al. Endoscopic ultrasound-guided celiac ganglia neurolysis vs. celiac plexus neurolysis: a randomized multicenter trial. *Endoscopy* 2013; 45: 362-369

