

# Antioxidants offer pain relief in patients with chronic pancreatitis

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Antioxidant supplementation was found to be effective in relieving pain and reducing levels of oxidative stress in patients with chronic pancreatitis (CP), reports a new study in *Gastroenterology*. CP is a progressive inflammatory disease of the pancreas in which patients experience abdominal pain (in early stage) and diabetes and maldigestion (in late stage). Pain is the major problem in 90 percent of patients with CP and currently, there is no effective medical therapy for pain relief. *Gastroenterology* is the official journal of the American Gastroenterological Association (AGA) Institute.

In this placebo-controlled, double blind trial, 127 patients, ages 30.5 $\pm$ 10.5, were assigned to placebo or antioxidant groups. After six months, the reduction in the number of painful days/month was significantly higher in the antioxidant group, compared with the placebo group (7.4 $\pm$ 6.8 versus 3.2 $\pm$ 4, respectively). The reduction in the number of analgesic tablets/month was also higher in the antioxidant group (10.5 $\pm$ 11.8 versus 4.4 $\pm$ 5.8, respectively). Furthermore, 32 percent and 13 percent of patients became pain free in the antioxidant and placebo groups, respectively; the beneficial effect of antioxidants on pain relief was noted early at three months.

"Abdominal pain, the predominant symptom in patients with CP, is difficult to treat. The main reason for a largely ineffective medical treatment is that the mechanism of pain in CP is not well understood," said Pramod Kumar Garg, MD, DM, of the All India Institute of Medical Sciences, New Delhi and lead author of the study. "We are

encouraged by our findings, as significant improvement was noted with antioxidants in respect to all the parameters of pain in this study. In addition, reduction in pain resulted in fewer man-days lost, thus providing functional employment gain to the patients. The findings should spur further research in this exciting area."

There are two important implications of this study — the fact that measures of oxidative stress were increased initially and decreased subsequently after supplementation with antioxidants suggests that there is a state of heightened free radical mediated injury in CP, and that injury is reversible. Second, with regard to pain management, this trial showed that antioxidant therapy is effective for pain relief in patients with CP. This assumes significance since no effective medical therapy exists for pain relief for such patients.

Pancreatitis is inflammation of the pancreas that usually begins as a sudden attack and is often caused by gallstones, alcohol abuse or genetic mutations. Symptoms of pancreatitis start with a gradual or sudden severe pain in the center part of the upper abdomen going through to the back. Treatment often focuses on the nutritional and metabolic needs of the patient and on relieving pain. Most people with chronic pancreatitis have a good prognosis if they follow their treatment regimen. "Aside from medication, abstaining from alcohol and smoking are most important and key to halt the progression of CP," added Dr. Garg.

Visit [www.gastro.org/patient](http://www.gastro.org/patient) for more patient information about pancreatitis.

Source: American Gastroenterological Association

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