Antioxidants Help Ease Pain in Chronic Pancreatitis

By John R. Bell

Washington — Antioxidant supplementation was effective in curbing pain in patients with chronic pancreatitis in a double-blinded, randomized controlled trial.

Measures of pain and oxidative stress were significantly lower in patients who took a daily antioxidant supplement for 6 months, compared with those who took a placebo pill, investigators reported at the annual Digestive Disease Week.

"It’s very difficult to treat pain, so antioxidants are a simple treatment and a dietary constituent, and if it can reduce the pain, this is of immense benefit to these patients," study investigator Dr. Payal Bhardwaj of the All India Institute of Medical Sciences, New Delhi, said at a press conference during the meeting.

About 90% of patients who have chronic pancreatitis have abdominal pain, conventionally treated by surgery, nerve blocks, or endoscopic treatment. "These three procedures are very invasive," she said. "What we have seen is a totally noninvasive dietary modulation.

The study included 127 consecutive patients (mean age 31 years) with chronic pancreatitis and abdominal pain who were randomly assigned to receive a daily antioxidant supplement (71 patients) or placebo (56 patients) for 6 months.

The supplement contained 600 mcg of selenium, 0.54 g of vitamin C, 9,000 IU of beta-carotene, 270 IU of vitamin E, and 2 g of methionine.

Pain relief was the primary outcome. Regression analyses at 6 months showed significantly decreased measures of pain in the supplement compared with the placebo group: mean number of painful days (1.7 vs. 4.4), mean number of oral analgesics taken monthly (4.4 vs. 10.5), and patients who reported that they were pain free (33% vs. 13%).

Secondary outcomes included levels of two markers of oxidative stress, both of which were significantly lower in the supplement group vs. placebo after 6 months: thiobarbituric acid reactive substances (3.6 vs. 5.4 nmol/mL) and serum superoxide dismutase (1.9 vs. 3.5 U/mL).

Dr. Bhardwaj noted that prior studies have also shown a benefit from antioxidants but that they were hindered by small sample sizes, shorter follow-up, subjective pain measures, or a crossover design.

Dr. Bhardwaj reported no potential conflicts of interest.