Antioxidants Help Ease Pain in Chronic Pancreatitis

BY JOHN R. BELL
Associate Editor

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 analysis at 6 months showed significantly decreased measures of pain in the supplement compared with the placebo group: mean number of painful days monthly (1.7 vs. 3.4), 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. ■

Wireless Capsule Helps Track pH in Pediatric GERD

TORONTO — A catheter-free capsule may be a viable alternative to conventional esophageal pH monitoring in children with gastroesophageal reflux disease symptoms, according to data from a retrospective study in 33 patients aged 10-18 years.

A notable advantage for children is that the capsule allows them to go to school and continue normal activities without a catheter hanging from their nose, Dr. Mirza Beg said during a poster presentation at the annual meeting of the Pediatric Academic Societies. The system is not indicated for the pediatric population.

Conventional esophageal monitoring uses a catheter, typically placed transnasally through the oropharynx into the esophagus. One end of the catheter protrudes from the nose and is connected to a battery-powered recorder worn by the patient.

The Bravo pH monitoring system (Medtronic Inc.) uses a capsule attached to the esophageal lining with a clip. It contains an acid probe and transmits pH data to a receiver worn by the patient for 48 hours, after which the patient returns the receiver to the physician and the data are downloaded. The capsule device falls off the lining after 5 or more days and is passed in the stool, reported Dr. Beg and his associates at the State University of New York (Syracuse) Upstate Medical University. The researchers were led by Dr. Manoochehr Karjoo. They disclosed no conflicts of interest with Medtronic and received no research support from it.

In the current study, Bravo monitoring was generally well-tolerated, and no significant complications were reported. Four patients had a mild sensation of substernal pain for 2 hours after placement. Most of the capsules were passed within 7-8 days.

—Patrice Wendling

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