One NSAID Dose Prevents Post-ERCP Pancreatitis

BY ROBERT FINN
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SAN DIEGO — A single dose of a nonsteroidal anti-inflammatory drug administered rectally decreases the risk of a common and dreaded complication of endoscopic retrograde cholangiopancreatography by 64%, according to a meta-analysis presented at the annual Digestive Disease Week.

About 5% of all endoscopic retrograde cholangiopancreatography (ERCP) procedures, which are performed to diagnose and sometimes to treat disease in the bile and pancreatic ducts, result in pancreatitis.

According to Dr. B. Joseph Elmunzer, the senior author of the study, pancreatitis can occur in 1%-2% of low-risk patients and in up to 40% of high-risk patients following ERCP.

The meta-analysis involved four randomized, controlled studies and a total of 912 patients who were given 100 mg of rectal diclofenac, 100 mg of rectal indomethacin, or placebo immediately prior to or immediately after they underwent ERCP.

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In addition to the statistically significant 64% reduction in cases of total pancreatitis, the meta-analysis found a 90% reduction in cases of moderate to severe pancreatitis.

In all, 15 patients would have to be treated to prevent one case of pancreatitis, and 38 patients would have to be treated to prevent one case of moderate to severe pancreatitis.

In a press conference, Dr. Elmunzer of the University of Michigan Medical Center, Ann Arbor, described this as "a reasonable number … particularly because NSAIDs are widely available, they're inexpensive, [and] they're well tolerated as a one-time dose."

Dr. Elmunzer acknowledged that the investigators eliminated a fifth trial, which returned negative results, from the meta-analysis.

That trial, which involved 154 patients, used oral rather than rectal diclofenac, and would therefore have decreased the degree of homogeneity in the meta-analysis.

But he noted that the meta-analysis would still have found a positive effect of NSAIDs even if that trial had been included, although the decrease in the risk of pancreatitis would have changed from 64% to 49%.

He hypothesized that oral administration might be less effective because peak serum concentrations are reached about an hour earlier from the rectal route. "In a condition like ECRP pancreatitis, when you know the insult begins at a particular time point and then progresses quickly, it may be that the oral administration of NSAIDs just misses the boat."

In spite of the encouraging results in the meta-analysis, Dr. Elmunzer urged caution in interpreting his results.

"With regard to medication prevention, this story has repeated itself on multiple occasions. There have been multiple agents that looked good initially, gained a lot of momentum, [and] even looked good on meta-analyses, and subsequent investigation has shown that there's absolutely no benefit."

When asked whether he uses NSAIDs with his ERCP patients at the University of Michigan Medical Center, Dr. Elmunzer said, "As an institution, we don't have a widespread policy of using NSAIDs. I personally use NSAIDs in my patients. While I'm not 100% convinced that this will pan out in the long term, the way I look at it is as a risk-benefit ratio. And I find that in most patients the risk of a single dose of diclofenac or indomethacin is so low that even if there's any chance that there might be a benefit… the risk-benefit ratio falls on the side of giving it."

However, the present study is not strong enough to generate widespread clinical practice changes, he added.

Dr. Elmunzer declared that he had no conflicts of interest related to his presentation. ■