Highlights From Digestive Disease Week—Pandemic-Related Decline in Colorectal Cancer Screening, Lack of Association Between Proton Pump Inhibitors and Dementia, and More

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Shortly after Digestive Disease Week ended in late May, JAMA sat down with Loren Laine, MD, the meeting’s council chair, to discuss research highlights presented at the conference—a collaboration of 4 professional societies: the American Association for the Study of Liver Diseases, American Gastroenterological Association, American Society for Gastrointestinal Endoscopy, and Society for Surgery of the Alimentary Tract. Laine is chief of the digestive diseases section at the Yale School of Medicine.

The following is an edited version of that conversation.

**JAMA:** Much has been written about the pandemic’s effect on preventive health care, such as a decline in childhood vaccinations. An analysis of colorectal cancer screening utilization at Kaiser Permanente Northern California even found a drop in at-home fecal immunochemical test screening. Was the drop in screening associated with a decrease in cancer detection? What might that bode for the future?

**DR LAINE:** There certainly was a reduction in the FIT test (fecal immunochemical testing) and an even greater reduction in the number of colonoscopies. Colonoscopies can be done as screening on their own. But of equal importance, if you have a positive FIT test, it’s crucial that you get a colonoscopy. During this period, there was a reduction of about 40% in screening and surveillance colonoscopies. And there was a marked decline in the detection of advanced adenomas and about a 10% reduction in colorectal cancer diagnoses.

Although the number of FIT tests was reduced for only a short period of time at the beginning of the pandemic because patients can mail them back, there was a longer decline in the number of colonoscopies that were being done. It took until almost the end of 2020 until they got back to approximately the normal number. During this period of 2020, there was a real decline in clinically important outcomes, such as the advanced adenomas and the colorectal cancers. These people may be diagnosed later. They may not receive treatment as rapidly. Over a period of years, people might not do as well, both because of the delay in diagnosis and the delay in treatment.

**JAMA:** Millions of people in the US take proton pump inhibitors (PPIs) to reduce the amount of acid in their stomach. Some research has suggested that these drugs are linked with an increased risk of dementia. But a study of nearly 19,000 patients over age 65 years in the US and Australia found that wasn’t the case. Please provide more details about the study and talk about whether it definitively answers the question about PPIs and dementia risk.

**DR LAINE:** This dates back to an article in JAMA Neurology in 2016, which I think was the first observational study that raised this idea of PPIs being associated with an increased risk of dementia. And there have been lots of observational studies. You can find evidence on both sides. I think people are saying the weight is somewhat against the association now, but I thought this was a really important study. Most of the other studies were retrospective and used so-called claims databases. They basically look just at diagnostic codes like ICD-9 [International Classification of Diseases, Ninth Revision] codes and didn’t have as much certainty about how reliable that diagnosis of dementia was. In those kind of studies, there’s lots of important potential confounding factors.

What I think is great about this study is that it is prospective, almost 19,000 participants followed for nearly 5 years. Unlike those other observational studies, the researchers collected information about medication use and other medical problems prospectively. Also, they had a battery of cognitive tests done at the first year and then every 2 years. If there was a positive trigger on those tests, they then got more advanced tests, and it was adjudicated by a dementia expert panel. Again, these analyses were prospectively defined. When they looked at all this information, they were able to adjust the results for potential confounders, such as medication use, age, and other things.

They followed study participants for almost 5 years, during which there were 566 cases of new-onset dementia. There was really no suggestion of an association of PPI use with dementia. They looked at cognitive decline without dementia and other things, and there was just no evidence of an association. When one looks at these kinds of studies to try to determine if there is a cause and effect, you look at kind of a dose response. So if people took PPIs longer, for instance, would they be more likely to...
JAMA: Can people move on and not worry about a possible increased risk of dementia if they take PPIs?

DR LAINE: There are studies that say more than half of people who use PPIs are worried about side effects. At this time, the preponderance of the evidence is that they probably don’t have to worry about dementia. But I think it’s important for us to look at why people are taking PPIs. What we find in studies and anecdotally is that some people who really should be taking PPIs get worried about things like dementia and stop taking them. Then they have problems like a gastrointestinal bleed. On the other hand, there are lots of people who are taking PPIs for no good indication or who don’t require them long-term. I think that population also should be defined, so we can deprescribe PPIs for them.

If somebody has, let’s say, intermittent heartburn once or twice a week or less, just taking an antacid or H2 [histamine 2]-receptor antagonist or even PPIs as needed is reasonable. Most people who have PPI-responsive GERD (gastroesophageal reflux disease) and don’t have any complications also can stop their medication. Maybe once or twice a year, they have to go on intermittent courses. There are also studies that look at on-demand use where people just take them for a period of days when they’re having symptoms and then stop. Certainly, a lot of people who are taking daily PPIs may not need to take them, so even if there aren’t these risks like dementia, there’s still no reason to give a medication more than is necessary.

JAMA: Researchers presented some startling findings about racial and ethnic disparities in 5-year survival rates for early-onset colorectal cancer. What might contribute to those disparities, and have they been observed in older adults diagnosed with colorectal cancer? Were other findings about disparities presented at the meeting?

DR LAINE: My group looked at the likelihood that a patient with upper gastrointestinal (GI) bleeding receives an upper endoscopy, which is recommended for almost every such patient. In a nationwide study, we found that among patients who came to emergency departments with upper GI bleeding, Black people and Native American individuals were less likely than White patients to receive an upper endoscopy.

JAMA: These were people who actually were coming in to be evaluated, right? It’s not like they didn’t have access to health care or didn’t know how to access health care.

DR LAINE: Yes. It’s not just issues of access. It’s actually receipt of health care once they have accessed it. There are a number of barriers that can occur, related to both the physicians and to the patients. Those are things we need to deal with.

JAMA: Are there any other studies presented at the meeting that you’d like to highlight?

DR LAINE: There was an interesting randomized controlled trial of a form of endoscopic bariatric treatment. For weight management, we have treatment with diet, medications, and, of course, bariatric surgery. But in between medications and bariatric surgery is the growing field of bar- iatric endoscopic therapies. One of the therapies that’s being increasingly used is an endoscopic sleeve gastropasty. Probably the most commonly performed bariatric surgery is the sleeve gastrectomy. This is an endoscopic method of doing something similar. Both of them are stomach-restricted procedures—they basically make the stomach into a much smaller reservoir.

This study took 208 patients who had a body mass index (BMI, calculated as weight in kilograms divided by height in meters squared) between 30 and 40 and randomly assigned them to get either the endoscopic procedure or no endoscopic procedure. Both groups got moderate intensity lifestyle modification therapy. The outcome was percent of excess weight loss and it was 45% greater among the patients who received endoscopic sleeve gastropasty than among those who received lifestyle modification alone.

Surgical sleeve gastrectomy patients have excess weight loss of close to 60%; they have a higher baseline BMI, so they’d be expected to lose more weight. The patients in this study were followed for 2 years, and even at the end of 2 years, they were able to maintain over 90% of their weight loss. So it was sustained weight loss, and they also indicated that patients had improvements in other things like diabetes and hypertension. So just like bariatric surgery, it may help other health conditions as well.