High Intake of Animal Protein Tied to IBD Risk

VITALS

Major Finding: The relative risk for developing IBD was 3.31 for high total protein intake and 3.03 for high animal protein intake, when comparing the highest tertile of intake with the lowest tertile of intake.

Data Source: A prospective study of a cohort of approximately 60,000 women aged 40-65 years, 77 of whom developed IBD during a mean follow-up of 10 years.

Disclosures: Dr. Jantchou said that he had no financial conflicts to disclose.

BY HEIDI SPLETE

FROM A TELECONFERENCE IN ADVANCE OF THE ANNUAL DIGESTIVE DISEASE WEEK

High intake of animal protein was significantly associated with increased risk of developing inflammatory bowel disease in a prospective study of more than 60,000 women aged 40-65 years, 77 of whom developed IBD.

Although doctors have long suspected an association between diet and inflammatory bowel disease (IBD), most previous studies on this topic have been retrospective, said Dr. Prévost Jantchou of the Centre for Research in Epidemiology and Population Health in Villejuif, France.

In this prospective study, onset of IBD occurred after the first dietary questionnaire was completed by each participant, so it was not necessary for the women to try to recall what they had eaten in the past—a common source of error in retrospective studies.

The 77 cases, all of whom developed confirmed IBD, were part of the E3N study, a cohort of more than 60,000 women that was established in France in 1990 to assess risk factors for female cancers. The controls were all the women in the cohort of 60,000 who did not state that they had developed IBD by 2005, the final follow-up. A Cox survival model analysis was performed.

The participants completed questionnaires about diet, disease incidence, and lifestyle every 2 years until 2005. The average follow-up period for the women in this study was 10 years.

Dr. Jantchou and colleagues examined participants' intake of protein, carbohydrate, and fat. Then the subjects were divided into three groups based on protein intake. The average intake of the low, middle, and high tertiles was 1.08 g/kg, 1.52 g/kg, and 2.07 g/kg, respectively. The Food and Drug Administration recommends an average daily protein intake of 0.8 g/kg of body weight, he said.

More than two-thirds of the 77 participants who developed IBD had an elevated protein intake, Dr. Jantchou noted. Mean total protein intake was 102.4 g/day for IBD cases vs. 92.1 g/day for controls, Dr. Jantchou said in an interview. Animal protein intake also was higher for the women who developed IBD during the study: 70.1 g/day, vs. 61.9 g/day for the controls, he said.

Overall, a high intake of animal protein was associated with a significantly increased risk of IBD. The relative risks for the highest tertile of intake vs. the lowest tertile were 3.31 for total protein intake and 3.03 for animal protein intake specifically. The associations remained significant after researchers controlled for smoking and hormone therapy, both of which can increase the risk for IBD.

When the investigators looked at specific animal proteins, they found that higher than average consumption of meat or fish was associated with a significantly increased risk of IBD but the high consumption of dairy products or eggs was not, Dr. Jantchou said.

When IBD was broken down into Crohn's disease and ulcerative colitis, similar results were seen for both diseases: High intake of animal protein was associated with an increased risk of each disease. The researchers found no association between either carbohydrate intake or fat intake and risk of IBD, he noted.

This study is the first to prospectively show an association between a high intake of animal protein and an increased risk of IBD, Dr. Jantchou said. "The next step we want to take is to look at animal protein in patients already diagnosed with IBD and to give them dietary advice," Dr. Jantchou added. ■