

Eosinophilic Esophagitis 'Spares No Age Group'

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

Eosinophilic esophagitis occurs in patients of every age, who can present with various symptoms including heartburn, abdominal pain, and nausea in addition to the more commonly seen dysphagia.

"Many physicians often think of eosinophilic esophagitis [EE] as a disease diagnosed in children and young adults," wrote Dr. Robert Kapel of Danbury (Conn.) Hospital and his colleagues. "Our series demonstrates that EE is a disease which spares no age group."

The investigators wrote that their series of 363 EE cases from 26 U.S. states is the largest yet, and they describe a disease entity with a more varied age of onset and symptomatic presentation than previously thought. "Our study highlights the need to consider this disease in patients with presentations other than dysphagia, as well as in older patients," they said.

Dr. Kapel and his coauthors extracted their data from a national database referred to Caris Diagnostics which contains information on all patients and, which provides gastroenterology services to freestanding endoscopy centers around the country. From January 2002 through May 2006, the database included 414,600 GI pathology cases from 217 centers. Almost all of the cases (98%) were adults.

The investigators searched these cases for confirmed diagnoses of EE based on eosinophil counts on pathology slides. Cases were defined as having a mean eosinophil count of 20 in five high-powered fields, or, when five fields were unavailable, a mean of 30 or more eosinophils in two to four fields.

By using these criteria, the investigators found 363 cases of EE. The ages of cases varied widely, from 14 months to 98 years, with a mean of 38 years. A total of 321 EE patients were adults.

Most of the EE cases were male (74%). In fact, gender was a very strong predictor of EE, in that males had a threefold increased risk, compared with

females. Age did not alter this risk factor; among the 42 pediatric cases, 33 (79%) were male, while among the adults, 74% were male.

The diagnosis of EE was significantly more common in children, amounting to 3% of the pediatric GI cases overall, versus 0.4% of the adult GI cases overall.

The investigators divided the peak eosinophil counts into tertiles of 20-59, 60-100, and more than 100 per high-powered field. Almost half of the cases (46%) had a peak mucosal eosinophil count exceeding 100 per field. Neither age nor gender was significantly associated with the distribution of the peak counts. Patients whose primary indication for endoscopy was dysphagia were slightly more likely to have higher peak mucosal eosinophil counts than those who did not report dysphagia.

Among adults, dysphagia was the most common indication for endoscopy (70%), followed by gastroesophageal reflux disease/heartburn (27%) and abdominal pain/dyspepsia (31%). Among children, however, the indications for endoscopy were more varied: 38% had GERD/heartburn, 31% had abdominal pain/dyspepsia, 26% had dysphagia, and 14% had nausea/vomiting.

"Adults reported dysphagia more than all other indications combined, whereas in children, it was only the third most common indication, suggesting that these groups differ in their clinical presentations," the investigators said (*Gastroenterology* 2008;134:1316-21).

The authors also noted that the prevalence of EE increased significantly over the study period among patients who had dysphagia as the primary indication for endoscopy. These prevalence figures were 0.1% in 2002, 0.9% in 2003, 1.2% in 2004, and 1.9% in 2005.

"There are two possible explanations for this trend. The first is that the prevalence truly is increasing, representing an epidemic of sorts. The second is that gastroenterologists have become knowledgeable about the disease, and their choice of whom to biopsy has become more targeted," the authors said. ■

Significant Increase in Number of Cases of Eosinophilic Esophagitis

BY KATE JOHNSON
Montreal Bureau

MONTREAL — The incidence of adult and pediatric eosinophilic esophagitis appears to be increasing dramatically, and endoscopic investigation and treatment have low complication rates, according to the findings of the largest reported population-based study of the disorder.

Dr. Chad Williams and his colleagues from the University of Calgary (Alta.) found an incidence of 7.2 cases/100,000 person-years in 2006 in the Calgary Health Region (population 1.2 million), the highest incidence to date, they reported in a poster at the Canadian Digestive Diseases Week.

"The number of diagnoses per year is definitely rising," Dr. Williams said in an interview. "Whether that reflects a true in-



COURTESY DR. CHAD WILLIAMS

An endoscopic image shows the typical appearance of eosinophilic esophagitis.

crease in incidence we're not sure. We may be just recognizing it more."

Few studies have investigated the incidence of eosinophilic esophagitis in general, and none has addressed the incidence in the adult North American population in particular, he said. A European study reported an adult incidence of 6 cases/100,000 person-years (*J. Allergy Clin. Immunol.* 2005;115:418-9).

In their retrospective cohort study, Dr. Williams and his colleagues identified adult and pediatric biopsy-proven cases of eosinophilic esophagitis in the Calgary Health Region between 2002 and 2006. Overall, there were 2 cases identified in 2002, and no cases in 2003. However, the reported incidence rose dramatically from

1.83 cases/100,000 person-years in 2004 to 4.27 cases in 2005 and to 7.2 cases in 2006.

The incidence per 1,000 upper endoscopies rose from 2.16 cases in 2004 to 8.35 cases in 2006. The incidence seemed to increase in adults, while it dipped among children. The number of cases in adults went from 5 in 2004 to 75 in 2006, compared with 16 in 2004 to 6 in 2006 in children.

Among the total of 158 identified cases, 75% were adults and 84% were male. The median age of adult patients was 39 years, and the median pediatric age was 12 years.

"In the pediatric population, patients usually present with food aversion, gastroesophageal refluxlike symptoms and abdominal pain, but in the adult population, the two main symptoms are dysphagia and food bolus impaction," said Dr. Williams at the conference, which was sponsored by the Canadian Association of Gastroenterology.

In a subanalysis of 144 of the eosinophilic esophagitis cases, the mean age of the patient population was 40 years (range 16 to 78 years), Dr. Williams' group reported in another poster.

Most (85%) of the patients were male, 74% presented with dysphagia, and 18% with food impaction. Allergies were noted in 27% of patients, asthma in 22%, gastroesophageal reflux disease in about 20%, and autoimmune disease in about 3%. All of the patients underwent endoscopic evaluation and biopsy, with 22% of patients also receiving concurrent therapeutic esophageal dilation.

Endoscopic complications were more common in patients undergoing dilation, with six mucosal tears documented, but no perforations, said Dr. Williams. In patients undergoing endoscopic biopsy alone, there was one mucosal tear resulting from the biopsy, and one resulting from trauma from the endoscope. Overall, this complication rate was low, compared with a previously reported rate of 30% (*Clin. Gastroenterol. Hepatol.* 2007;5:1149-53).

"Gastroscopy is a fairly safe procedure, although we did have one mucosal tear in our group, but I am not a proponent of dilation in this population," he said, recommending medical treatment with fluticasone as the first-line therapy. ■

Fine-Tuning Sought for Monitoring Celiac Disease Patients

BY KATE JOHNSON
Montreal Bureau

MONTREAL — Several noninvasive tests used in combination may be a more sensitive method for monitoring celiac disease activity and patient compliance with the gluten-free diet than are current approaches.

At Canadian Digestive Diseases Week, Dr. Alaa Rostom said that the majority of his celiac disease patients make every effort to avoid gluten, but hidden sources of this protein—found in wheat, rye, and barley—are often responsible for

persistent symptoms. Dr. Rostom, from the University of Calgary (Alta.), presented his research in a poster at the meeting.

"The gold standard for diagnosis is positive serology and a consistent biopsy. But once a gluten-free diet is started, it takes large dietary indiscretions to turn the serology positive again," he said.

Dr. Rostom polled a celiac disease expert panel regarding the accuracy of various noninvasive tests for monitoring disease activity and dietary adherence. The experts were asked to rank their top six tests, and tests were in-

cluded in a final list if they were ranked by more than 50% of panel members. Univariate analysis revealed that the use of serology, the lactulose/mannitol test for intestinal permeability, body mass index, triceps skinfold thickness, the gastrointestinal symptom rating score (GSRS), and a quality of life measure were all considered useful by panel members.

Dr. Rostom then calculated the sensitivity and specificity of the various tests based on a retrospective data set of about 200 patients. "Serology has important sensitivity, about 90%, but the

specificity is less than 90%, which explains why it won't detect small amounts of gluten exposure," he said. "On the other hand, the lactulose/mannitol test isn't very sensitive but it has a pretty high specificity." Therefore, combining results from both of these tests proved more useful than relying on either one alone, and yielded both a sensitivity of 92% and a specificity of 92%, which is comparable to results obtained from intestinal biopsy, he explained.

By using these results, Dr. Rostom compiled the Celiac Disease Activity Scoring System

(CeDARS), which is now being validated in two randomized controlled trials. "I think probably the best assessment will likely come from combining serology, plus the lactulose/mannitol test, plus GSRS," he suggested, pointing out that the beauty of this particular combination of tests is that it can capture different stages of response to gluten exposure.

Dr. Rostom emphasized that the goal of CeDARS is not to replace, but rather to enhance annual serology, which is currently recommended for monitoring celiac disease patients. ■