

**National Eosinophil Awareness Week
Question & Answer Twitter Party
May 20, 2010**

**Comments and unanswered questions have been omitted from this review and the order of questions and answers has been restructured to allow you a better opportunity to review the event.
To review the entire online event, please log on to Twitter and search #ANEAW**

APFEDorg: Hello everyone! Thank you for joining us for our National Eosinophil Awareness Week Question & Answer Twitter Party.

APFEDorg: Our first guest is Dr. Philip Putnam, Pediatric GI, Cincinnati Children's Hospital Medical Center.

APFEDorg: Dr. Putnam will be answering questions on the topic "Eosinophilic Associated Disorders - What are they?"

APFEDorg: Dr. Putnam, thank you for joining us today.

Q. Dr Putnam, What is an eosinophil?

A. An Eosinophil is a type of white blood cell, normally present in blood and certain tissues

Q. Where does the name come from?

A. Eosin is a special stain that makes certain tissues red under the microscope, which eosinophils take up avidly, so 'eosin loving.

Q. What is the role of eosinophils?

A. Normally, they help defend us against parasitic infections, but they also participate in diseases such as asthma and allergies.

Q. What is an eosinophil associated disorder?

A. Disease state in which eosinophils are present in excess in a particular organ or organs; often the GI tract is involved.

Q. Are there different types of eosinophil associated disorders?

A. Named by the site of the disease: eosinophilic esophagitis, gastritis, colitis, or if multiple affected areas, eos. Gastroenteritis.

Q. Which is the most common?

A. Eosinophilic esophagitis is by far the most common.

Q. How common is eosinophil esophagitis (EoE)?

A. It probably varies somewhat by geographic area, but approximately 55 patients per 100,000 people is the estimate for the US.

Q. How does EoE differ from eosinophilic gastroenteritis (EG)?

A. EoE affects only the esophagus, whereas EG can affect other parts of the GI tract, with or w/out esophageal involvement.

Q. How is eosinophilic colitis (EC) different?

A. EC affects only the colon (large intestine), usually causes non-specific abdominal pain or diarrhea.

Q. Is the disease process the same for EoE, EG and EC?

A. Probably not, although there is insufficient research to date to know exactly how they differ immunologically.

Q. Do adults get EoE?

A. Yes; they can either have it from childhood persisting into adulthood, or they develop symptoms in adulthood.

Q. What are some other eosinophil associated diseases?

A. Hypereosinophilic Syndrome, Churg-Strauss, eosinophilic leukemia, eosinophilic fasciitis.

Q. What is Churg Strauss Syndrome?

A. Loosely defined overall, but generally includes the combination of asthma, high blood eosinophils and neurologic symptoms.

Q. What is Hypereosinophilic Syndrome?

A. Rare condition in which there are high levels of eos in blood and certain tissues, so it can affect many non-GI systems.

Q. If I have EoE will I get Hypereosinophilic syndrome?

A. NO.

Dr. Putnam also answered the following questions posted by attendees:

Q. Hi Doc, what do you think about the recent discovery of a gene associated with Eosinophilic disorders?

A. It is intriguing and gives us a means to search for the underlying causes by investigating the gene product.

Q. How much of a role do environmental allergens play in Eosinophilic disorders?

A. Probably not much, other than making the individual miserable with respiratory symptoms.

Q. What is the harm in having a few eosinophils in the esophagus? Do they cause damage?

A. It depends on the degree of involvement, with 'a few' otherwise undefined, perhaps not an issue.

Q. Why are so many adults getting this now?

A. It's not clear whether it's a true increase or just better recognition now that adult GIs will do biopsies in the 'gus.

Q. The threshold for eosinophils is 15 or higher - what if there are 6 or 13 - how is it conclusively determined that EE is present?

A. The diagnosis ultimately depends both on the number of eos PLUS the absence of response to PPI, low #'s may be GERD.

APFEDorg: Dr. Putnam, we appreciate your time in answering our questions and participation in this event. Thank You!

DrPutnam: Thanks for inviting me! I hope it was helpful.

APFEDorg: Our next guest is Dr. Jonathan Markowitz, Pediatric GI, Greenville Hospital Medical Center

APFEDorg: Dr. Markowitz will be answering questions on the topic "How are eosinophil associated gastrointestinal disorders (EGID) diagnosed?"

APFEDorg: Dr. Markowitz, thank you for joining us today.

Q. Dr. Markowitz, who gets EoE?

A. Anyone can get EoE, any ages, any races. Boys tend to get it more often than girls, by about 3 to 1.

Q. What are the symptoms of EoE in infants?

A. Usually as reflux symptoms in infants (spitting up, irritability, vomiting, and less often growth problems or feeding refusal).

Q. Symptoms in toddlers?

A. EoE symptoms are similar in toddlers as infants, but they may also complain of abdominal pain.

Q. Symptoms in school age children?

A. In children, symptoms are similar to infants and toddlers, but may also include complaints like heartburn or regurgitation.

Q. Symptoms in older children and teens?

A. Similar to all of the others, but may also complain of difficulty swallowing or food getting stuck.

Q. Are the symptoms of EoE the same in adults as children?

A. Similar, but adults more often have difficulty swallowing or food getting stuck. May also have strictures that need to be dilated.

Q. Who should be tested?

A. Those with symptoms listed previously that do not respond to medical treatment. Especially those who have significant.

Q. How is EoE diagnosed?

A. By a combination of symptoms and findings on endoscopy, which shows high numbers of eosinophils in the esophagus.

Q. What is an endoscopy?

A. A test where a special camera is used to look at the esophagus and stomach and take small tissue samples from the lining.

Q. What is a biopsy?

A. A small tissue sample from the lining of the GI tract. Can be looked at under a microscope to help diagnose EoE and other problems.

Q. How many biopsies should doctors do to diagnose EoE?

A. It's patchy, so it usually takes several. 4 to 6 is a good number to increase the likelihood of finding the disease if it's there.

Q. Does the pathologist need to count eosinophils?

A. Not exactly. When there's a lot you can usually tell without counting. When it's a borderline case, counting may help.

Q. Is there a way to diagnose EoE without invasive tests?

A. Right now endoscopy is the only way to definitively diagnose it.

Q. Is there a blood test for any of the eosinophil associated diseases?

A. None that can diagnose it definitively, but blood tests may help to support the diagnosis.

Q. Will more endoscopies and biopsies be needed after the initial diagnosis?

A. It's an important way to monitor response to treatment, so usually there is a need to do several over time.

Q. I've heard EoE is hereditary. Do my family members need to be tested?

A. If they have symptoms like uncontrolled reflux, difficulty swallowing, or food impaction that do not respond to treatment, yes.

APFEDorg: Dr. Markowitz, we appreciate your time and participation in this event. Thank You!

APFEDorg: Our next guest is Dr. Glen Furuta, Pediatric GI, The Children's Hospital, Denver

APFEDorg: Dr. Furuta will be answering questions on the topic "Treatment of eosinophil associated gastrointestinal disorders."

APFEDorg: Dr. Furuta, thank you for being here today.

Dr. Furuta: Thank you for having me today

Q. Dr. Furuta, How is EoE treated?

A. For children with EoE, the goal of treatment is to insure normal growth and development. We use steroids and/or diet treatments and individualize treatment according to a family's concerns and lifestyle.

Q. I've heard kids with EoE can't eat food. Is that true?

A. Our experiences have been that most children can eat some food. Every patient with EoE is a little different so there are some patients who have not been able to eat foods and rely on formula for their nutrition.

Q. Why do some kids with EGID have a feeding tube?

A. There are some patients who have not been able to eat foods and rely on formula for their nutrition. Some patients may not like the taste of formulas or may not be able to drink enough during the day to maintain their nutrition. Others may not have learned or reacquired their skills to eat foods. Our experiences are that these skills are able to be relearned in time.

Q. What medications help EoE?

A. Symptoms and esophagitis can be helped with pill, liquid or sprays of steroids. Antacid medications may help with symptoms but do not necessarily help with inflammation in allergic esophagitis.

Q. What is an elemental diet?

A. Most food allergic reactions are due to proteins that are swallowed. Proteins are composed of small molecules called amino acids. Elemental formulas are composed of mixtures of sugars, fats, minerals, vitamins and amino acids.

Q. What is an elimination diet?

A. Elimination diets contain only foods that are thought to not cause an allergic reaction. Typically, the diet has been defined by an allergist and dietician on the basis of skin or blood testing.

Q. What is a 6- food elimination diet?

A. One study by Dr. Kagalwalla showed that by eliminating the 6 most common food allergens, most patients with EoE were brought into remission. The six foods eliminated included cow-milk protein, soy, wheat, egg, peanut, and seafood.

Q. What are food trials?

A. After an appropriate diet has been identified for a patient with EoE, some patients may be able to tolerate a food that they could not eat before. When foods are added back into a diet after it has been eliminated or if a food has never been eaten before, this is called a food trial.

Q. How do I know if my child should see a dietitian?

A. Since most children have changed the way that they eat, almost all children with EoE, regardless of treatment, should see a dietician at least once to insure that they are getting proper calories, proteins, minerals and micronutrients. All children who are on nutritional management of their disease should see a dietician for the same reasons.

Q. What is a stricture?

A. A stricture is a narrowing of the inside of an organ. This is thought to occur as a result of inflammation in some children and adults with EoE. It can cause food not to pass into the stomach and has been associated with food impaction. It is not certain who, when, or how this problem develops.

Q. How are strictures treated?

A. Esophageal strictures are most commonly treated by dilation or stretching the esophagus. This procedure is accomplished by inserting a long cylindrical rubber tube into the mouth and esophagus or by placing an inflatable balloon thru the endoscope into the esophagus. Potential side effects include pain and perforation.

Q. Is it safe to dilate strictures in the esophagus of someone with EoE?

A. An increasing number of adult studies suggest that it is safe if performed in a careful fashion by experienced endoscopists.

Q. Is there a cure?

A. I think that cure means to restore health. If thought of in this way, there are absolutely cures. If thought of as a permanent solution for a disease, the medical community is not quite there yet but I am always hopeful that we will find ways to improve patient's lives with EoE and EGIDs.

Q. Where can I get more information on treatments for EGID?

A. American Partnership for Eosinophilic Diseases (AFPED.org) has excellent mainstream information about treatments of EGIDs. Food Allergy and Anaphylaxis Network (Foodallergy.org) and Food Allergy Initiative (faiusa.org) both have outstanding information about food allergies.

Q. Where can I get more information on experimental treatments?

A. American Partnership for Eosinophilic Diseases (AFPED.org) has mainstream information about new treatments of EGIDs. Treatment studies receiving support from the National Institutes of Health can be found at www.clinicaltrials.gov/ct2/results?term=eosinophilic+esophagitis

APFEDorg: Dr. Furuta, we appreciate your time and participation in this event. Thank You!

APFEDorg: Our final guest today is Dr. Sandeep Gupta, GI, James Whitcomb Riley Hospital for Children

APFEDorg: Dr. Gupta will be answering questions on the topic "Prognosis and Late complications of EGID"

APFEDorg: Dr. Gupta, we appreciate your joining us here today.

Q. Dr. Gupta, Can children outgrow EoE?

A. There is limited data on long term outcomes of EoE and we do not as yet know if it can be outgrown.

Q. Will children out grow EG or EC?

A. EG/EC are diseases with inflammation of other sites in the GI tract - these are not as widely seen as EoE and not known if outgrown.

Q. Does EoE lead to cancer from inflammation of the esophagus?

A. Limited adult data would suggest not BUT we do not know for sure; I worry about this due to the intense inflammation in EoE.

Q. Tell me more about strictures. Can this complication be prevented?

A. Strictures happen in EoE due to scar tissue - hopefully chance of stricture can be reduced with therapy and control of inflammation.

Q. Can long-term use of elemental formula cause malnutrition?

A. Elemental formula Rx should be under guidance of professionals including MD and dietitian - the patient should be closely monitored.

Q. Are there other complications on long-term elemental formula?

A. Nutritional issues, feeding issues due to lack of oral stimulation, bone health needs considered among others.

Q. What are the complications of restricted elimination diets?

A. Need to check nutritional status inc dietary adequacy. need monitoring by professionals. quality of life can be a problem on diet.

Q. Should people on these diets be monitored?

A. Yes - they need to be under care of health care professionals who are adequately trained in these dietary modifications.

Q. Are there side effects from topical steroids such as fluticasone and budesonide?

A. Can see yeast in esophagus with inappropriate administration. not known if can have systemic issues inc any affect on bone health.

Q. My child has a g-tube. Will he need this forever?

A. Need for G tube depends on clinical course and the therapy you and your doctor decided to be best for your child and your family.

Q. What are the complications of tube feeding?

A. Inadequate calories/feeds due to intolerance, diarrhea from over-load of calories/volume, abdominal discomfort and others can be seen.

Q. Is there a cure for any eosinophil associated disorder?

A. There are a variety of medications and diet therapies for treatment of eosinophilic disorders and the choice depends on many factors.

Q. What damage can EoE cause if it is undiagnosed and untreated?

A. Feeding problems, ongoing symptoms, growth problems, quality of life issues, scarring/stricture/narrowing of esophagus among others.

Q. If I have EoE, will my children get it too?

A. There is data and clinical experience to support that EoE can occur in multiple members of family; the risk is not well-defined.

APFEDorg: Dr. Gupta, we appreciate your time and participation in this event. Thank You!

Because the event was running behind, Dr. Ass'ad was unable to attend live.

We have included the questions that were asked of Dr. Assa'ad, as well as her responses.

Dr. Amal Assa'ad, Allergist, Cincinnati Children's Hospital Medical Center

Dr. Assa'ad addressed questions on the topic "Allergies and Eosinophilic Esophagitis (EoE)"

Q. What is skin prick testing?

A. It is a simple procedure that detects in a matter of 15 minutes whether the person has allergy antibodies to an allergen, whether it is a food, or an environmental allergen.

Q. What is patch testing for foods?

A. It is a procedure that is thought to detect delayed allergic reactions. It is done by leaving the allergen on the skin for 2-3 days and looking for induration at the skin site.

Q. Can patch testing help determine which foods are causing my son's EE?

A. Patch test can tell if child has possibly a delayed reaction to the food. Determine if a food causes EE needs removing the food and seeing that EE gets better, then putting the food back in and seeing if it gets worse again.

Q. What is a food challenge?

A. It is an office procedure where the food that is suspected to cause a reaction is fed to the patient under supervision of the physician. This way reactions can be evaluated and documented by the physician.

Q. What type of testing is most helpful to determine the foods causing EoE?

A. We still do not know that foods 'cause' EoE. We know that some food sensitizations are associated with EoE. So, a combination of history and all available tests, skin, patch and food challenges is necessary.

Q. Will allergy shots be recommended as part of treatment of eosinophilic disorders?

A. Allergy shots are to environmental allergens and their effect on EoE has not been studied. Many of our patients are already on allergy shots but still have EoE.

Q. Do environmental allergies play a role in EGID?

A. Possibly.

Q. What are the most common foods that cause EoE?

A. Again, I caution against using the word cause. The food sensitizations mostly associated with EoE depends on whose list you look at and by which test they were identified.

Q. Is soy lecithin okay to for people with soy allergy?

A. Soy lecithin refers to the 'lipid' portion of soy. It is not clear if it contains remnant of proteins or not. The answer depends on how 'allergic' the person is to soy.

Q. What happens if someone with EGID is exposed to an "unsafe" food?

A. Nothing immediately, but based on patient reports, their symptoms may flare up a few days later.

Q. I have a peanut allergy. Is peanut oil safe?

A. In general hot pressed peanut oil does not contain peanut protein but cold pressed oil does.

Q. I have a corn allergy. Is corn starch ok?

A. Corn starch does not have any remnants of corn protein, so corn starch can be consumed by patients who have a corn allergy to the corn protein.

Q. I have a nut allergy. What does “may contain traces of nuts” mean? Do I need to avoid these products?

A. Yes because products labeled as such may truly contain traces of nuts.

Q. How concerned should EGID patients be about cross contamination in the factory or at home?

A. Since patients with EGID do not exhibit immediate reactions of the anaphylactic type, cross contamination may not be a problem in that sense; however, the physician should be able to tell you how strict they want the elimination to be.

Q. Are separate plates and utensils needed?

A. Same answer as above.

Q. Is asthma more common in people with EGID?

A. Asthma is commonly reported in persons with EGID, but asthma is also common in the general population.