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John Leung, MD is the founding physician and CEO of Boston Food Allergy Center, director of Center for Food Related Diseases at Tufts Medical Center and director of the Pediatric Food Allergy Center at Floating Hospital for Children. He is the first US-trained physician dual board-certified in both Allergy/ Immunology and Gastroenterology.

After graduating from Chemical Engineering with honors, Dr. Leung attended medical school at the University of Michigan Medical School and completed his Internal Medicine residency at University of Iowa Hospitals and Clinics where he focused his research on gut mucosal immunology. He then completed a 4-year clinical and research combined Gastroenterology fellowship at Tufts Medical Center under the mentorship of Dr. Joel Weinstock, followed by an Allergy/immunology fellowship at Massachusetts General Hospital/Harvard Medical School under the mentorship of Dr. Wayne Shreffler.

Dr. Leung is the site principal investigator for multiple NIH-funded and pharmaceutical sponsored studies. He is an attending physician in both the Department of Medicine and Department of Pediatrics at Tufts Medical Center, a clinical assistant professor at Friedman School of Nutrition Science and Policy at Tufts University, an adjunct faculty Tufts University Immunology graduate program, and an affiliated faculty of Tufts Institute for Innovation. He is also an investigator for Consortium of Eosinophilic Gastrointestinal Disease Researchers (CEGIR).

He has coauthored numerous peer-reviewed manuscripts, scientific abstracts, book chapters, and online tutorials. His clinical focuses are on aeroallergen immunotherapy (for asthma, allergic conjunctivitis and rhinosinusitis), oral immunotherapy (for food allergy) and dietary treatment (for IBS, EoE, EGID and FPIES), in addition to other general GI and allergy conditions.



Aeroallergen testing



Drug allergy testing



Patch testing



Endoscopy



Food allergy testing



Oral challenge



Spirometry



Food intolerance testing



*Immunotherapy
(allergy shots)*



Oral immunotherapy



H. pylori breath test



GI appointment



In-house lab



Nutrition



Infusion



Eosinophilic esophagitis

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Eosinophilic esophagitis

WHAT IS EOSINOPHILIC ESOPHAGITIS (a.k.a. EoE)?

“Esophagitis” means inflammation (“itis”) of the esophagus, and “eosinophilic” signifies the inflammation is driven by eosinophils. Eosinophils makes up less than 3% of the white blood cells in your blood. Eosinophils normally are *not* present in the esophagus. Their primary function is to fight parasites and they also take part in various allergic diseases. When they accumulate in the esophagus, it causes inflammation and damage to the esophagus. The inflammation affects the coordination of muscle and nerve in the esophagus, causing difficulty swallowing.

WHAT CAUSES EOE?

Almost all EoE cases are caused by a delayed-type of food allergy. Unlike immediate-type of food allergy (e.g. peanut allergy that can cause anaphylaxis), the delayed type of food allergy that cause EoE only affect the esophagus and does not cause anaphylaxis.

HOW DO YOU FIND THE FOOD TRIGGERS?

To date, there is no lab tests that can accurately identify food trigger(s) in EoE. While skin testing and blood testing are routinely used to help identify food trigger(s) in immediate-type food allergy (e.g. nut allergy), research has shown they are not helpful in pinpointing the food triggers in EoE. Fortunately, through extensive research and experience from taking care of large number of patients with EoE, we now know certain foods are much more likely causing EoE than the others.

WHAT ARE THE TREATMENT OPTIONS?

Eliminating the food trigger(s) is the one of the best treatment options available since almost all EoE is caused by food allergy. Our success rate is ~85%.

Effective and safe pharmaceutical treatment is also available for patients who do not want to avoid food trigger(s) or do not respond to dietary therapy. Several medications are in the final stage of the FDA approval process but there is currently no FDA-approved drug for EoE. Two options are available for our patients if pharmaceutical treatment is needed: off label use of medications or enroll into a clinical trial. Budesonide is one example of off-label medication we use to treat our EoE patient. Budesonide has a long track safety track record for the treatment of asthma. When it is used for asthma, patients inhale it. When it is used for EoE, we ask patient to swallow it after it is made vicious (“sticky”). As a site principle investigator for various NIH- and pharma-funded clinical trials, patients will have access and options to almost all the new drugs under investigator.

WHY DO WE NEED TO FIND THE FOOD TRIGGER AND TREAT EoE?

EoE, if left untreated, can lead to short-term and long-term problems:

Short-term: swallowing difficulty and food impaction

Long-term: scarring of the esophagus, leading to stricture and permanent dysfunction of the esophagus



WHY CHOOSE BFAC?

1. Dr. Leung is an investigator of CERIG, a rare disease network funded by the NIH to study EoE
2. We have access to most if not all the new study drugs for EoE via active clinical research
3. Dr. Leung has been treating EoE patients since 2007.
4. BFAC is one of the largest EoE treatment centers in new England.
5. Our team made of Dr. Leung (an allergist and gastroenterologist), licensed dietitian, and registered nurses will standby you every step of the way.

References:



<https://www.rarediseasesnetwork.org/cms/CEGIR>

bfac.org/research

bfac.org/publications

bfac.org/EoE