Summer 2018 Newsletter

The AERD Center at Brigham and Women's Hospital

Information for patients with aspirin-exacerbated respiratory disease (AERD) / Samter's Triad

What's Inside

Message from our Directors

We have made real progress at the AERD Center this past year, in large part due to the support and contributions from our Registry participants. We are now have nearly 1000 participants, and we don't see any reason to close the Registry to future participants, so we may well expand our goal to increase it to 2000 participants!

Through additional survey responses this year, we are now able to further investigate the following new questions:

1) Is AERD associated with ear symptoms like hearing loss?
2) Is AERD associated with high eosinophil levels in the esophagus?
3) About a quarter of Registry respondents indicated that they accidentally ingested NSAIDs after they had been diagnosed with AERD and knew to avoid them. Why do these accidental ingestions occur and how can we work to prevent them?

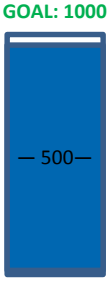
Our team is currently analyzing the data from these surveys. Stay tuned for publications of our results in the coming months! Also be on the lookout for a survey we will be sending out to women in our Registry this summer. We are hoping to understand how menstrual cycles, pregnancy, and menopause affect sinus and asthma symptoms in AERD.

Thank you all so much for your continued dedication to this research, and we hope our work serves to answer some of the many remaining questions about AERD.

Drs. Tanya Laidlaw, Katherine Cahill, & Joshua Boyce

By the Numbers

Thank you for your participation in our AERD Registry! With 978 patients enrolled, we have almost reached our goal of 1,000 participants! Our participants come from all 50 U.S. states and 19 countries.



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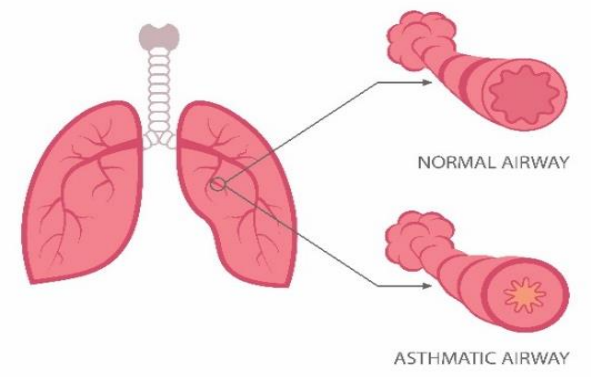

Dupixent for Severe Asthma

Dupixent (generic name, dupilumab) is a medication that we expect will be FDA-approved and available to treat severe asthma by the end of this year. It is a subcutaneous injection once every 2 weeks that patients can learn to perform themselves at home.

Multiple studies have assessed the safety and efficacy of dupilumab in patients with severe asthma. In one study, 1,902 patients 12 years and older were randomly assigned to receive 52 weeks of dupilumab or placebo. The annual rate of severe asthma exacerbations (defined as a worsening of asthma leading to treatment for 3 days or more with oral steroids or to hospitalization) was significantly lower in the subjects receiving dupilumab compared to those receiving placebo. Improvements in lung function (measured by spirometry tests) were greater in the dupilumab group compared to the placebo group. Subjects on dupilumab also had better scores on asthma symptom questionnaires than subjects on placebo as early as week 2 of treatment. A second study in 201 patients found that dupilumab reduced the use of oral steroids in patients with steroid-dependent severe asthma.

This medication has also been shown in a small Phase 2 trial to be efficacious in treating nasal polyps and therefore may be beneficial in treating both the sinus and asthma components of AERD. Larger Phase 3 trials are underway internationally to learn more about the effects in patients with nasal polyps.

Here at the Brigham and Women's Hospital, we hope to investigate the efficacy of dupilumab in other conditions such as chronic rhinosinusitis and obstructive sleep apnea.

QUICK FACTS

Dupilumab is expected be approved to treat severe asthma this winter. It is administered via at-home injections.

AERD Webinar

On Valentine's Day of this year, Dr. Laidlaw held a webinar through the Allergy and Asthma Network entitled "Love Is in the Air—Don't Let Aspirin-Exacerbated Respiratory Disease (AERD) Take Your Breath Away." If you missed it, you can check it out at https://youtu.be/i8PHXeNuioY.

Nucala for AERD

A recent study published by our team assessed symptomatic changes in 14 individuals with AERD who were prescribed Nucala (generic name, mepolizumab) for severe asthma. Treatment with 3 or more doses of Nucala decreased eosinophils and improved self-reported sense of smell, nasal congestion, and asthma control. The nasal symptom improvements reported by individuals with AERD were greater than those reported in previous studies in individuals with severe nasal polyposis but no AERD, suggesting that patients with AERD may have a greater response to Nucala than their aspirin-tolerant counterparts (Tuttle KL, et al. JACI IP 2018).

Prasugrel Trial

Our team recently completed a study in 40 patients with AERD to understand whether

treatment with the medication prasugrel, which blocks platelet activation, would decrease sinonasal and respiratory reactions during aspirin challenge. We found that prasugrel did not reduce aspirin-induced symptoms overall. However, in a small subset of patients who had greater baseline platelet activation and less severe respiratory symptoms during reaction to aspirin, prasugrel inhibited all reaction symptoms during the challenge. Results from this study will be published in the Journal of Allergy and Clinical Immunology.

Xolair for Nasal Polyps (POLYP2)

The POLYP 2 Study aims to find out if an investigational medicine can help treat people who have Chronic Rhinosinusitis with Nasal Polyps and ease their symptoms

- Some people in the study will receive the investigational medicine, which has already been approved for use in people with allergic asthma and chronic urticaria (hives)
- Other people in the study will receive an inactive medicine called a placebo
- Everyone in the study will also use a daily steroid nasal spray at home

Who can take part in the study?

You may be able to take part in the POLYP 2 Study if you have been diagnosed with chronic rhinosinusitis with nasal polyps and you meet the following criteria:

- you are aged 18-75 years
- you have been using a steroid nasal spray for nasal polyps for at least 4 weeks
- you have nasal congestion, runny nose or dripping at the back of your nose, or reduced sense of smell

Other study entry criteria will need to be met in order to take part in the POLYP 2 Study – the study doctor will be able to explain these to you.

How to see if you are eligible:

If you are interested in potentially joining the POLYP 2 Study, or have any questions, please speak to your doctor or call 617-525-1267. Alternatively, you can get more information and complete a quick questionnaire to see if you may qualify to take part, by visiting POLYP2-study.com.

Aspirin Desensitization Studies

Though tiny doses of aspirin can trigger a reaction in patients with AERD, daily treatment with high-dose aspirin (650 mg twice a day) is one of the few effective therapies that can delay the regrowth of nasal polyps and improve respiratory function for many of these patients. In order for patients with AERD to start high-dose aspirin, an aspirin desensitization is required.

We currently have two aspirin desensitization studies at Brigham and Women's Hospital:

CLINICAL STUDY 1: PGD2

To qualify for this study, you must be between the ages of 18 and 75 and have a confirmed diagnosis of aspirin-exacerbated respiratory disease (AERD). The study requires four in-clinic visits over a period of about three months, during which time you will undergo an aspirin desensitization and

then take aspirin 650 mg twice daily for 8 weeks followed by aspirin 325 mg twice daily for 2 weeks. Each visit includes a physical examination, blood and urine collections, a series of written questionnaires, lung function testing, an evaluation of sense of smell, and collection of breath and nasal fluid. You will be treated by a medical doctor and receive the study medication at no cost to you. The purpose of this study is to find out how aspirin desensitization and high-dose aspirin therapy benefit patients with AERD. You will be compensated $100 for each completed visit. For more information, please contact the study coordinator Joe Singer at 617-525-1284 or at jsinger3@partners.org.

CLINICAL STUDY 2: Ifetroban

If you would like to undergo an aspirin desensitization to help treat your symptoms, you may be eligible for a research study at Brigham and Women's Hospital testing a new medication for the treatment of AERD.

The study drug, called ifetroban, inhibits the thromboxane receptor, which we believe plays a role in AERD. This drug has not yet been approved by the Food and Drug Administration (FDA).
To qualify for the study, you have to be 18-65 years old, have symptoms consistent with Samter's Triad/AERD, and have asthma. The study involves 3 visits over an 8-week period and involves an aspirin desensitization procedure, blood and nose fluid sampling, and urine tests. You will be seen by a medical doctor and will receive the study medication at no cost. The purpose of this study is to find out if taking ifetroban will help treat the symptoms of AERD and prevent reactions to aspirin. Compensation is up to $225. For more information, please contact the Asthma Research Center at 1-888-99-ASTHMA (278462) or Dr. Tanya Laidlaw at tlaidlaw@partners.org.

Staff Changes

Katherine N. Cahill, MD

Dr. Cahill will be moving her practice to Vanderbilt Medical Center in Nashville, TN at the end of July. We will miss her in Boston, and wish her well!

Kathleen Buchheit, MD

Starting in July, Dr. Kathleen Buchheit, who also specializes in AERD, will see patients on Mondays at the 850 Boylston St. Allergy Clinic in Chestnut Hill, MA. She will also assume the role of Associate Director of the BWH AERD Center.

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