# P112 Correlation between clinical findings and laboratory tests for alpha gal sensitivity

**Article** *in* Annals of allergy, asthma & immunology: official publication of the American College of Allergy, Asthma, & Immunology · November 2017

DOI: 10.1016/j.anai.2017.08.136



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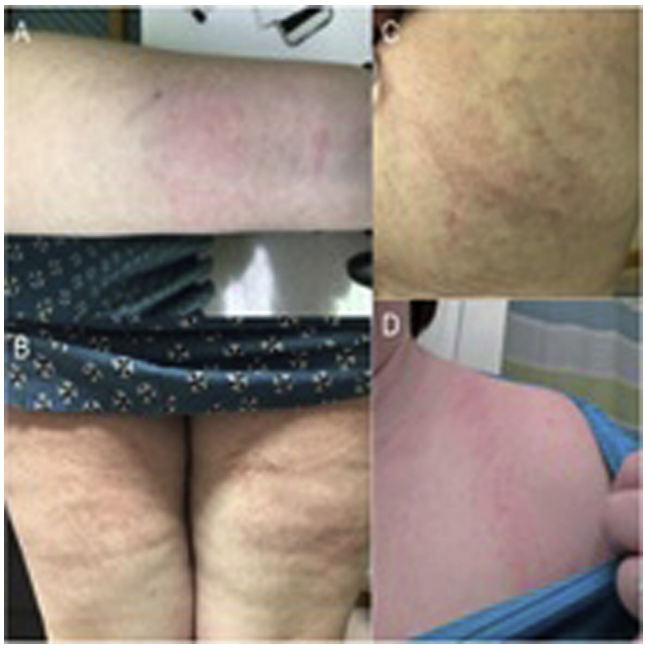
achieved quickly, but have been associated with an increased risk of systemic reactions. Most reactions are not severe, and usually occur within two hours after the last injection. The most commonly reported reaction with RIT is flushing. Delayed pressure urticaria (DPU) is a subtype of physical urticaria.

**Case Description:** 29-year-old female with no prior history of physical urticaria presented with progressively worsening history seasonal allergic rhinitis. Despite avoidance measures and maximal medical therapy, symptoms persisted. She underwent a 1-day RIT with standard premedication. No signs of anaphylaxis or other systemic reactions were noted. However, four hours after the final injection, she developed pruritic urticaria over pressure dependent regions; elastic wrap bandage (Fig 1A), posterior thighs (Fig 1B), and along her undergarment (Fig 1C). A challenge procedure of 15-lb weight across the shoulder for 15 minutes was positive for DPU (Fig 1D). Despite being given diphenhydramine orally every 4-6 hours, the pressure dependent urticaria remained for the next 36 hours. She then developed one single episode of pressure dependent urticaria within one hour of her first weekly maintenance subcutaneous immunotherapy (SCIT) with improvement within a few hours. She is currently on monthly SCIT and has remained asymptomatic.

**Conclusion:** There have been limited reports of systemic reactions extending beyond the completion of RIT. To our knowledge, this is the first case report of delayed pressure urticaria following rush immunotherapy.




Pruritic urticaria over pressure dependent regions; elastic wrap bandage, posterior thighs, and along her undergarment

## P111

### COUGH HYPERSENSITIVITY SYNDROME DIAGNOSED AFTER 30 YEARS: A COMMONLY UNRECOGNIZED ENTITY

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**Introduction:** Cough hypersensitivity syndrome is defined as a low threshold for excessive coughing triggered by irritant, thermal or chemical agents. The central concept is presence of symptoms despite inability to identify clear pathophysiologic mechanisms causing them.

**Case Description:** A 70-year-old female non-smoker was evaluated for a 30-year history of cough, associated with wheezing, shortness of breath and hoarseness. Her symptoms were triggered by upper respiratory infections, strong odors and laughter. She was previously diagnosed with asthma but failed to respond to maximal therapy. Further evaluation included an unremarkable Complete Blood Count, normal spirometry, negative methacholine challenge test, negative chest commuted tomography, negative skin prick testing to aeroallergens. Local Ear Nose Throat evaluation showed edema and erythema of her vocal cords and was started on twice a day proton pump inhibitor therapy, without improvement. She finally underwent evaluation at a tertiary care center where she was diagnosed with cough hypersensitivity syndrome, on laryngoscopy and Leicester Cough questionnaire scoring 16.01. She was started on amitriptyline and speech therapy leading to improvement of cough.

**Conclusion:** In chronic cough, it is imperative to rule out the diagnostic triad : asthma, gastroesophageal reflux disease and postnasal drip. However, in patients who have a partial or no response to treatment must certainly be evaluated for other causes including cough hypersensitivity syndrome, vocal cord dysfunction, tracheal pathologies, infections, polyps and eosinophilic bronchitis. Cough hypersensitivity syndrome is tested by eliciting response to capsaicin or other protussives and treated with neuromodulators like amitriptyline, nortriptyline or gabapentin.

## P112

### CORRELATION BETWEEN CLINICAL FINDINGS AND LABORATORY TESTS FOR ALPHA GAL SENSITIVITY

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**Rationale:** Galactose-alpha-1,3-galactose (alpha-gal) is a carbohydrate moiety present on cells of non-primate mammalian species. After sensitization to alpha-gal, most often due to tick bites, patients reported delayed anaphylactic symptoms to red meats.

**Methods:** The charts of 40 patients with positive symptoms and high clinical suspicion for red meat sensitivity were analyzed (18 pediatric, 22 adult). Of these, 25 tested positive to red meats by skin prick test or serum IgE assay (ImmunoCAP). Of the forty, 10 underwent alpha-gal testing at a commercial lab. The remaining 30 were untested for alpha-gal due to various reasons such as young age, or voluntarily forgoing testing.

**Results:** For all the 12 patients whose serums were tested, the alpha-gal lab test results were negative. We have been unable to confirm our positive clinical features with current alpha-gal lab tests, and we found 100% negative correlation between suspected alpha-gal sensitivity and the lab result.

**Conclusion:** Clinicians must be aware of poor cross-correlation between clinical history, skin test results and laboratory data in patients with red meat sensitivity. Clinicians should remain vigilant in cases with delayed allergic reactions following meat ingestion, relying more on their clinical acumen for further management, rather than the laboratory test for alpha-gal. Until the FDA approves an alpha-gal test with better sensitivity and specificity, it would be prudent to be skeptical of negative alpha-gal results. Reproducibility is crucial to any lab test, and the current state of alpha-gal testing needs improvement.

## P113

### PATIENT NONCOMPLIANCE WITH THE RECOMMENDED 30-MINUTE POST-SCIT INJECTION WAIT TIME

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**Introduction:** Ninety percent of severe allergic reactions to subcutaneous immunotherapy (SCIT) occur within the 30-minute period after an injection. The 2011 Joint Task Force on Practice Parameters for Allergy and Immunology recommended that