CHRONIC URTICARIA: THE ANSWER WAS IN THE STOOL
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LEARNING OBJECTIVES
- Patients with chronic urticaria endure extensive testing that is often unrevealing and symptom relief is only achieved with toxic medications.
- Eradication of a parasite may result in complete resolution of chronic urticaria in specific patient populations.

CASE INFORMATION
HISTORY:
A 47 year old woman, recently immigrated from Mexico, presented with a one month history of recurrent pruritic rash, refractory to topical steroids.
- Rash occurred spontaneously at night and resolved by the early morning.
- Denied using new soaps, lotions, detergents, meds and had no prior history of allergies or asthma.
- Symptoms not associated with arthralgias or fevers.

PHYSICAL EXAM:
She was afebrile, HR 76, BP 124/76, and in no acute distress. Skin exam revealed a diffuse, blanchable macular rash and diffuse joint tenderness without synovitis.

LABORATORY EVALUATION:
- CBC normal, TSH normal.
- ESR high at 53, C1 esterase inhibitor low at 20, C1q immune complex normal, C3 low at 40, C4 undetectable.
- ANA neg, RF high normal at 23 CCP neg, cANCA & pANCA neg.
- Tissue biopsy showed infiltration of neutrophils and eosinophils, consistent with urticaria.
- Stool cultures are positive for Blastocystis hominis. The rest of her infectious work-up was unrevealing.

LABORATORY:
- Blastocystis hominis is one of the most common organisms to be detected in stool, identified in 2.6% of samples submitted to state health departments. More than 70% of positive samples were from California.
- The uncertain pathogenesis of B. hominis discourages clinicians from considering it as a cause and defers treatment, as in our case.
- B. hominis has repeatedly been described as a true pathogen that may present with irritable bowel syndrome, skin and other extra intestinal manifestations.
- B. hominis has also been shown to be more prevalent in patients with chronic urticaria.

CLINICAL COURSE:
- Oral prednisone for 1 week provided mild relief, but shortly thereafter developed fevers and diarrhea.
- She was then hospitalized for further work-up.
- Hydroxychloroquine and doxepin were then started, which provided mild symptomatic relief.
- Nitazoxanide was prescribed to eradicate B. hominis infection with complete resolution symptoms.
- Surveillance stool culture was negative.

CLINICAL IMAGES:
Trichrome is a routinely employed stain in many clinical microbiology laboratories, and studies have shown that it is more sensitive for the detection of intestinal protozoa, including B. hominis.

URTI o, hives, are pruritic, edematous, erythematous lesions that are typically round or oval.

DISCUSSION
- Chronic urticaria is a common debilitating condition that is a difficult problem for both patient and physician.
- No external cause is identified in 80 to 90% of patients with chronic urticaria.
- B. hominis is one of the most common organisms to be detected in stool, identified in 2.6% of samples submitted to state health departments. More than 70% of positive samples were from California.
- The uncertain pathogenesis of B. hominis discourages clinicians from considering it as a cause and defers treatment, as in our case.
- B. hominis has repeatedly been described as a true pathogen that may present with irritable bowel syndrome, skin and other extra intestinal manifestations.
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EVALUATION AND MANAGEMENT
- Chronic urticaria is a diagnoses of exclusion. If fx, PE and testing (CBC w/diff, ESR, LFTs, UA, TFTs, tests for autoimmune) unremarkable or hives persist for >36hrs, lesions should be biopsied to rule out vasculitis.
- When initial work-up is unrevealing, early eradication of B. hominis should be pursued in patients with chronic urticaria.
- Expert consensus recommends treatment of B. hominis with a short course of Metronidazole, Trimethoprim-sulfamethoxazole, or Nitazoxanide.

TIMELINE
1/30/2009: Pruritic Rash
2/24/2009: Derm Consult
3/14/2009: Hospital Admission
3/25/2009: Rheum Consult
5/1/2009: Allergy Consult

Diagnoses: Chronic Urticaria
Topical Steroids
H1 blocker
Oral Steroids
Hydroxychloroquine
Week-up continues
Nizatamidine
Resolutions of Sxs

REFERENCES