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CLINICAL VIGNETTE

Hives Happen: An Uncommon Suspect

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Introduction

Urticaria is a very common and often frustrating presenting diagnosis to primary care. Also known as hives, urticaria is identified by well circumscribed erythematous plaques with central pallor. These plaques are often round but can present in a variety of ways. One defining characteristic is that lesions are intensely pruritic. A host of causes have been identified as triggers for urticaria. This is often initially thought to be an allergic reaction and soaps, dyes, detergents, pollens, dander, medications, and a variety of foods have been implicated in hives.¹ Anxiety, depression, and psychological stress have also been reported causing hives.² A variety of infections are known to cause urticaria including mycoplasma, urinary tract infections, mononucleosis, and parasites.³ Frequently, no cause is identified before symptoms resolve.

Case Report

A 36-year-old male with medical history of ulcerative colitis presented to his PCP with diarrhea and rash. He noted onset of diarrhea and mild abdominal pain for two days prior to the visit. This was concerning because of his history of ulcerative proctitis, which had been well controlled on mesalamine for two years. He concurrently developed a new intensely pruritic rash on his right upper leg and groin.

On questioning he reported travel to Guatemala two weeks previously. He denied drinking any local water, specifically drinking only purified bottled water. He recently changed detergents and bath soaps but stopped using them after the onset of rash. He is sexually active with one male partner, and engages in receptive and insertive anal intercourse as well as anal-oral intercourse.

On physical exam, the patient was afebrile, with normal vital signs. His exam was essentially normal with normal breath sounds and a non-tender, non-distended abdomen. He had a fine, papular, erythematous rash noted on right upper thigh, right groin, and right abdomen. There were no involvement of interdigital space or axillae.

The patient was thought to have a mild flare of ulcerative colitis, but was also tested for intestinal parasites, bacteria, as well as inflammatory markers along with basic labs. He was treated with steroid cream for the rash and given permethrin cream for possible scabies infection although thought to be low yield.

Labs were notable for normal CBC without differential, with normal white blood cell count. Blood chemistries were all within normal limits. The patient's fecal calprotectin was moderately elevated to 102 (ULN is 42). His stool tested positive for Giardia by PCR and positive for shiga toxin in stool without shigella on culture.

He was treated with Tinidazole 2g for giardiasis and monitored for any signs/symptoms of hemolytic uremic syndrome given his positive shiga toxin PCR.

His mild GI symptoms rapidly improved however his urticaria persisted for several more weeks. Urticaria was treated with cetirizine, famotidine, in addition to topical steroid and PRN diphenhydramine. He was retreated with tinidazole and repeat giardia PCR was negative two weeks after the initial treatment. He remained free of wheezing and urticaria improved and resolved within three weeks of initial visit.

Discussion

Urticaria is a rare complication of giardiasis, present in 10% of infected individuals.⁴ While the exact mechanism is not proven, parasites are very potent activators of IgE and eosinophils.⁵ Giardia is a very uncommon cause of urticaria which is a very common diagnosis. However, a very thorough history should be taken in all cases of urticaria as this may be a clue to an underlying systemic disease. The specific cause of a large percentage of urticaria cases is not found. Clues to infection with giardia are diarrhea, bloating, steatorrhea, weight loss. But giardia is occasionally asymptomatic. Furthermore, unless the patient has specific risk factors, giardia is not often considered.

Risk factors include immunocompromised status, travel to endemic areas with poor water purification, with exposure to non-purified well water or river water and children in daycare settings.⁶ It is now noted that the community of men who have sex with men (MSM) have a higher incidence of giardia. The CDC website advises all who have exposure to feces from sexual contact are at risk from giardia infection.⁷ Specific history of anal-oral intercourse should be taken in patients with suspicion. This is a reportable disease to public health and must be reported if found. In patients with sexually transmitted disease, as this case was presumed, the patient's partner should be treated to prevent reinfection. Both patients were treated with tinidazole in this case.

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