

CASE REPORT

CHRONIC HIVES ASSOCIATED WITH *HELICOBACTER PYLORI* IN A CHILD

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Chronic urticaria is fairly a common disorder in children and management is sometime challenging. *Helicobacter pylori* (*H. pylori*) should be considered as one of the causes for chronic urticaria when the response to conventional treatment is not appropriate. A nine years old girl with suspicion of wheat allergy (celiac disease) and chronic urticaria was referred for endoscopy. Antral nodularity with *H. pylori* gastritis was observed and confirmed on biopsy specimen with normal small bowel mucosa. Treatment for *H. pylori* cured her chronic urticaria. *H. pylori* should be considered as one of the differential if conventional medication does not help curing chronic urticaria.

Key words: Urticaria, *H. Pylori*, Hives.

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INTRODUCTION

Urticaria is one of the most frequent skin manifestations seen in the medical practice. Wheals and itching are the typical presentation of disease.¹ Chronic urticaria for more than six weeks can cause significant morbidity in children affecting quality of life.² *H. pylori* association and causation with chronic urticaria has been reported in the literature with poor understanding of pathogenic mechanism.³ Treatment and eradication of *H. pylori* leads to remission of chronic urticaria. We report a nine years old girl with chronic urticaria and very mild abdominal pain who was referred to rule out celiac disease. This is probably the first case report from Saudi Arabia regarding this association.

CASE REPORT

A nine years old girl, who was referred with suspicion of celiac disease because of chronic urticarial rashes all over the body especially on the limbs and trunk with pruritus for almost a year. These rashes appeared almost on daily basis with disappearance in 24–36 hours. She never experienced any drug reaction, allergic symptoms with any food consumption or anaphylaxis in the past. She described very mild abdominal pain which was mainly in the epigastric region for six months duration. There was no association with meals or any history of vomiting, hematemesis, melena, diarrhoea constipation or weight loss. She never visited any paediatrician for abdominal pain but for her skin rashes, she had multiple visits. She was advised different topical medications and antihistamines without any effective response. Her appetite and diet was reported as normal. Family history was negative for any atopy, skin disease or allergy to any food and drug. Physical examination also revealed urticarial rash but only few on the

trunk and limbs. Her anthropometry was essentially within normal limits. Her complete blood count, IgE levels, chest X-ray and ultrasound abdomen were all unremarkable. Celiac serology was only positive for antigliadin antibodies (IgA 58, IGg 72) with negative tissue transglutaminase antibodies. Serum antibodies to *H. pylori* and urea breath test both were positive. An upper gastrointestinal (GI) endoscopy showed marked nodularity in the antral region suggestive of *H. pylori* infection. Histopathology also confirmed positive *H. pylori* in the biopsied samples with normal small bowel histopathology. She was started on triple therapy for *H. pylori* including amoxicillin, clarithromycin, and proton pump inhibitor for two weeks despite very mild nature of abdominal pain. On follow up visit after a month she had remarkable improvement in her symptoms with disappearance of rashes as well as pruritus within two weeks after initiation of treatment.

DISCUSSION

H. pylorus is a gram negative spiral shaped bacillus and a major etiological agent in causation of gastritis and ulcer disease.⁴ Its eradication and treatment leads to healing and improvement in the symptoms. Seropositivity for *H. pylori* is directly related with age, and inversely to the socioeconomic status.⁵

Correlation between chronic urticaria and *H. pylori* infection has been proposed in many studies in the past however most of the cases were reported from adults.⁷ There are many extra-intestinal manifestations associated with *H. pylori* which include chronic urticaria, atopic dermatitis, aphthous stomatitis, immune thrombocytopenia, Henoch-Schoenlein purpra, and sideroblastic anemia.^{8,9} None of these associations were noticed in our patient except urticaria.

The possible mechanism in causation of dermatological manifestation with *H. pylori* is still

less understood. One proposed mechanism recently been suggested that chronic carriers of *H. pylori* may have increased gastric permeability, predisposing infected children to food allergies. Few studies have documented autoimmune and immune-allergic mechanisms involved in *H. pylori* and chronic urticaria.¹⁰

The patients with chronic urticaria associated with *H. pylori* infection may present only with hives/wheals without gastrointestinal symptoms or sometime with abdominal pain and chronic urticaria. The skin manifestations, severity and exacerbation might depend on the bacterial load and intensity of inflammation.¹⁰ Urticaria with hives/wheals is a clinical diagnosis but antibodies against *H. pylori*, urea breath test, endoscopic findings with histopathology are the main stay of diagnosis for *H. pylori* as in our patient endoscopy with biopsy confirmed *H. pylori* infection. Other supportive investigations helps in exclusion of diseases include IgE level, celiac serology, autoimmune panel and C1 esterase.¹¹ All these investigations were normal in our patient. There are few case reports and studies which have documented good response to triple regimen with complete resolution of hives and urticaria within 3–4 weeks of institution of therapy and as documented in this case report our patient also had good response to triple therapy.¹¹

This case report and few others in paediatric population represent *H. pylori* as a possible etiological agent of chronic urticaria, so in patients where the cause of chronic urticaria can be problem, one should consider investigation for *H. pylori*.

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