A Case of Henoch-Schönlein Purpura (HSP) Presenting with Severe Abdominal Pain

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ABSTRACT

Henoch-Schönlein purpura (HSP), is an acute condition affecting all systems of the body and is the most frequently observed vasculitis of children. The main features observed clinically in this condition included palpable purpura, pain in the abdomen and inflammation of joints. Here we present a case of a three and a half years old female child who presented with the complaints of severe abdominal pain and vomiting. Four days after admission, the child developed a purpuric, non -blanching rash on the legs and gluteal area, which was diagnosed as Henoch-Schönlein purpura. Symptomatic treatment was given, and patient was discharged on improvem ent of condition. In general, most cases of HSP are self-limiting in nature and show a good prognosis.

Key Words: *Abdominal pain, Henoch Schönlein purpura, Purpuric rash, Vasculitis*

Introduction

Henoch-Schönlein purpura (HSP) is an acute condition resulting in acute leucocytoclastic vasculitis, which affects small vessels of different body systems. It has an incidence of about 10 cases per 100,000 a year, and is the most frequently observed cause of vascular inflammation in children.1This disease primarily affects the small vessels of the gastrointestinal system, kidneys, joints as well the skin. In some studies, a preponderance of cases has been observed in the male gender.2 The actual pathogenesis of this condition is not known for sure, however, it is believed to be a particular clinicopathological state in which immune complexes comprising of immunoglobulin A (IgA) and complement component 3 (C3) are laid down in all body vessels. Moreover, high levels of serum IgA are also seen in such patients.

The three distinctive features of this condition are a palpable purpura, pain in the abdomen and inflammation of joints. Other features seen rarely include disturbed functioning of the kidneys, damage to the bowels and impaired working of the central nervous system. HSP is primarily diagnosed by the presence of purpura, which is not associated with low platelet count. The areas affected by the purpura include mainly the lower limbs and buttocks.3 The management of a patient with HSP, is supportive as this condition subsides by itself. We present a case of a 3-year-old child with severe abdominal pain and development of rash on 4th day of admission.

Case Report

A female child of age 3.5 years presented to OPD in Akbar Khan Niazi Teaching Hospital with the complaints of severe abdominal pain for the last three weeks and vomiting for four days. She was perfectly alright 3 weeks back when she developed generalized abdominal pain, which was intermittent and initially mild in intensity. After 5 days, it became continuous and severe, neither shifting nor radiating. Patient also showed decreased oral intake. Vomiting was non-projectile occurring 4 to 5 times per day after taking solid food. Volume of vomitus was about a cup and contained food particles. Initially, there was no blood for the first 2 days then streaks of fresh blood in every vomitus was observed for the next 2 days. On systemic inquiry, there was no history of fits, fever, burning micturition, rash, joint pain, chest pain, cyanosis or diarrhea. She had achieved her milestones at an appropriate age.

On physical examination, the child was lying in a supine position and appeared irritable, lethargic and dehydrated. Her vitals showed a pulse of 110/min, temperature of 98 F, respiratory rate of 30/minute and blood pressure of 80/50 mmHg. Throat was normal. No lymph nodes were palpable, and there was no jaundice, rash or pedal edema. On GIT examination, significant guarding all over the abdomen, more so over the epigastric and umbilical regions was seen. There was no tenderness in the right iliac fossa. No hepatosplenomegaly, or ascites was observed & bowel sounds were normal. Investigations were ordered. Urine

routine examination, as well as culture and sensitivity report were normal. Ultrasound abdomen was performed.

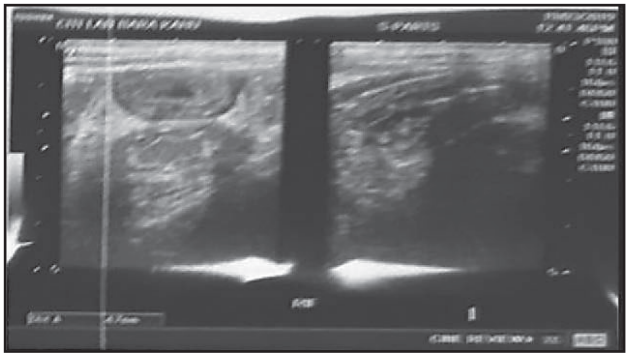

Figure 1: Ultrasonography film of abdomen

Ultrasound abdomen showed mild fluid level in both iliac fossae and thick-walled gut loop with echogenic mucosa. Multiple mesenteric lymph nodes were seen. On the basis of history and these investigations, differential diagnosis of mesenteric lymphadenitis, non-Hodgkin lymphoma, abdominal tuberculosis and chronic appendicitis was made. Further investigations were performed. To establish diagnosis, CT scan of abdomen was ordered.

Symptomatic treatment of the child was started, with Injection Ondansetron 1.2 ml IV SOS, infusion Risek 20 mg IV OD, syrup Mucaine 5 ml TD, syrup Vermox 5 ml BD for 3 days and 5% Dextrose half saline in maintenance dose.

Pain and vomiting settled in 2 days. On the fourth day of admission, the child developed a rash on both lower limbs and buttocks. On detailed examination, rash was found to be purpuric and non blanching.

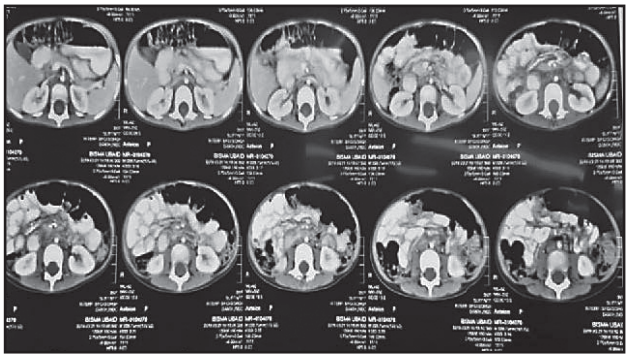

Figure 2: Duodenum is comparatively dilated in 1st and 2nd part with collapsed 3rd part of duodenum. Stomach is dilated. Few subcentimeteric sized para aortic, mesenteric and right inguinal lymph nodes.

A final diagnosis of Henoch-Schnolein purpura was made. The child improved with the treatment provided and was discharged after 2 days in a stable condition. The rash resolved on its own.

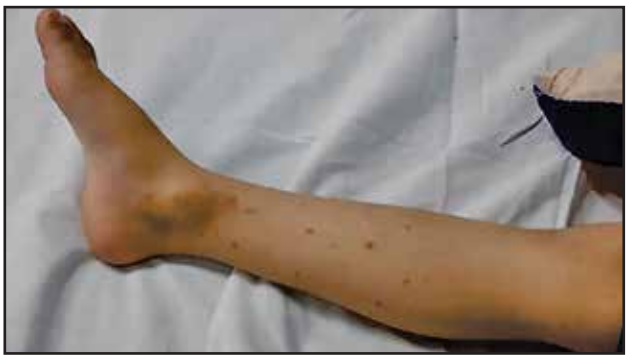

Figure 3: Purpuric non-blanching rash on extensor surface of right leg

Discussion

Henoch Schonlein Purpura has a variable incidence in different parts of the world. The incidence varies from 6.2 to 70.3 per 100,000 children, less than 17 years of age with the male gender showing a higher ratio of involvement (M : F = 1.2 : 1.0).4 The lowest incidence of this condition is seen in Afro-Caribbeans, while Asians have the highest incidence5. The occurrence of HSP is mainly observed in spring and winter. In older individuals, the incidence ranges from 3.4–14.3 per million population. This condition is self-limiting, so most cases are probably not reported.6 HSP is an acute immune complex-mediated, leukocytoclastic vascular inflammatory condition with the patient having purpura and complaining of abdominal pain, arthritis, and occasionally involvement of the central nervous system and scrotum in the form of orchitis and epididymitis.7 Vessels in the GI tract, kidneys, joints and the skin are primarily affected in this nonfatal and self-limiting condition. If kidneys are affected then this may end in chronic involvement.2 A patient aged less than 17 years may be diagnosed with HSP, if he has a palpable purpura as well as involvement of different body systems (GI, kidney and joints), in the absence of low platelet count. Various conditions like Crohn's disease, IgA nephropathy, infective endocarditis, Wegener's granulomatosis, and hemolytic uremic syndrome may be considered in the differential diagnosis of HSP. Vasculitis due to hypersensitivity may occur as leukocytoclastic vasculitis involving the skin (palpable purpura) and infrequently, the gastrointestinal tract, but IgA deposition, a hallmark of HSP is not seen. Moreover, in Crohn's disease and IgA nephropathy, a palpable purpura is not observed.8

HSP is a self-limiting condition as has been observed in 94% of children and 89% of adults in different studies with a five-year survival rate of 95%.9

Symptomatic treatment is indicated for rash and arthritis. Non-steroidal anti-inflammatory drugs like Acetaminophen provide symptomatic relief however, Aspirin is contraindicated in young patients.4

Conclusion

All cases of children with severe abdominal pain should be properly evaluated for Henoch Schonlein purpura. Timely management can prevent bowel emergencies like intussusception. Children usually recover without any lifelong complications.

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