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Research Article

A Case Study of Abdominal Pain, Dysentery and Bilious Vomiting: An Atypical Presentation of Henoch Schonlein Purpura

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ABSTRACT

Adolescent male resident of Hazara, Pakistan presented with abdominal pain, bilious vomiting, dysentery and knee pain of 10 days' duration in July of 2014 to the emergency department of the Aga Khan University Hospital. Knee pain later migrated to ankle and was associated with redness and oedema. Abdominal x-ray revealed thickened bowel wall that was suggestive of enteritis. He was being treated with IV antibiotics (ceftriaxone and metronidazole), which did not help in resolving his symptoms. Overnight he started developing palpable rashes on his feet, back and abdomen, which raised the suspicion of Henoch-Schonleinpurpura. There were no signs to suggest any respiratory and urinary systems involvement. He was given intravenous prednisolone after which his rashes dramatically disappeared and his ankle pain and other symptoms resolved. On follow up his lab investigations were within normal range with complete disappearance of rash and resolution of his abdominal pain, dysentery and bilious vomiting. Rarely dysentery is accompanied with palpable rashes and should raise suspicion of Henoch-SchonleinPurpura. Knowledge and understanding of this rare disease can help early diagnosis and initiate prompt treatment.

Keywords: Adolescent, vomiting, edema, enteritis, Henoch-SchonleinPurpura.

INTRODUCTION

Henoch-SchonleinPurpura is the most common type of small vessel vasculitis and develops in children due to the deposition of immunoglobulin A (IgA) immune complexes in the small vessels walls leading to their eventual necrosis. Triggers for developing this condition include infectious agents, vaccinations and drugs. It mostly manifests as an acute onset palpable purpura in the lower extremities. The disease can virtually involve any organ system of the body and therefore can present with a wide range of symptoms, these may include abdominal pain, diarrhea, dysentery, subcutaneous edema, scrotal edema, joint pain, renal involvement etc. A detailed physical examination is therefore indicated. It is a disease of young children with 50% below 6 years and 90% younger than 10 years. It rarely develops in adolescent and adult population. Here we present a case of an adolescent male patient with an atypical presentation of HenochSchonleinPurpura that was misdiagnosed initially and resulted in a prolonged hospital stay [1].

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AIgA immune complexes in the small vessels walls leading to their eventual necrosis. Triggers for developing this condition include infectious agents, vaccinations and drugs. It mostly manifests as an acute onset palpable purpura in the lower extremities the disease can virtually involve any organ system of the body and therefore can present with a wide range of symptoms, these may include abdominal pain, diarrhea, dysentery, subcutaneous edema, scrotal edema, joint pain, renal involvement etc. A detailed physical examination is therefore indicated. It is a disease of young children with 50% below 6years and 90% younger than 10 years. It rarely develops in adolescent and adult population Herewe present a case of an adolescent male patient with an atypical presentation of Henoch-SchonleinPurpura that was misdiagnosed initially and resulted in a prolonged hospital stay[2].

Case Report

An 18-year-old male patient presented in the emergency department of The Aga Khan University Hospital Karachi with history of loose stools 4-5 episodes per day which he explained to be watery inconsistency containing small amounts of fresh blood.

He had central abdominal pain moderate to severe in intensity, colicky in nature with mild vague tenderness on examination. There was no association with meals and body movements. He also complained of 3-4 episodes of non-projectile vomiting greenish with food particles and small amount of blood in it.

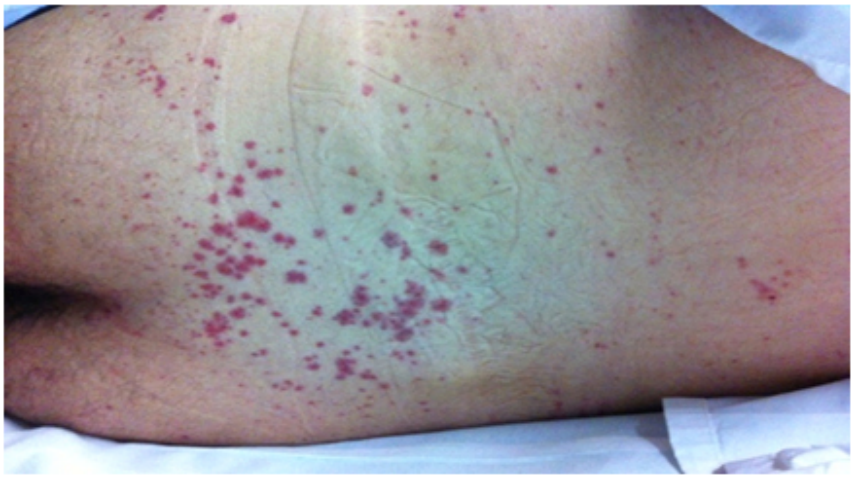
He developed bilateral knee pain, which later migrated to both the ankles. Later he also developed swelling at both the ankles, which caused difficulty in walking. He was afebrile throughout and had no urinary symptoms. Our patient had never experienced such symptoms in the past neither head any history of allergies, blood transfusions and any significant family history of bleeding disorders malignancies or autoimmune diseases. On examination he was alert, active and fully oriented pale looking young individual.

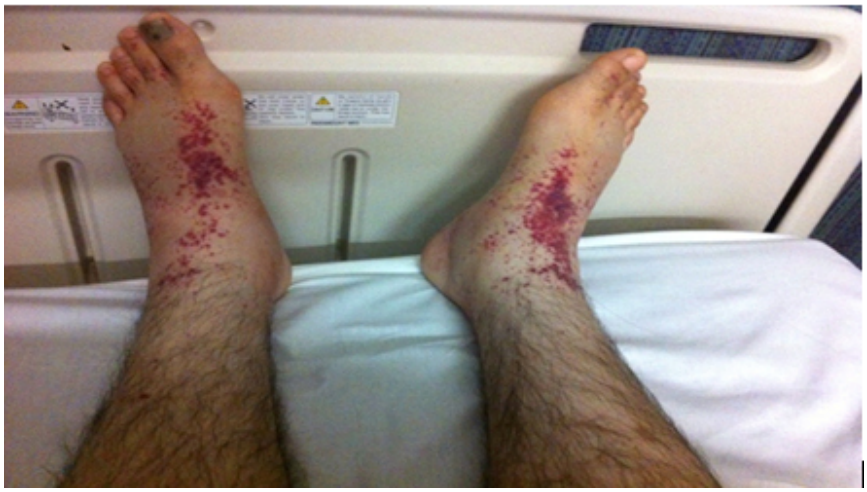
There was no appreciable jaundice, cyanosis or clubbing however he was mildlytachycardia with a pulse of around 100 with systolic pressure of around 110 without any fever On neurological examination, he had no focal deficits; power was 5/5 in all four limbs, though movement at both knee and ankle joints were painful (7on scale of 10). Cardiovascular examination was unremarkable, S1 and S2 audible with no added sounds without any murmurs, thrill or heave. Respiratory system examination revealed normal vesicular breathing bilaterally without any crackle, wheezing or rhonchion auscultation.

Abdomen was soft, non-distended but tender in mid epigastrium only. Gut sounds were clearly audible. No surgical marks, bruises or scars were noted. Among lab investigations Blood Urea Nitrogen, Creatinine and electrolytes were sent to check for any electrolyte abnormalities and status of volume depletion.

Complete Blood Count was sent to assess the Hematocrit level for indirect assessment of blood loss, TLC counts for assessment of acute or chronic inflammatory response and platelet counts for normal clotting function. Outpatient had normal hematocrit of around 30 with raised TLC counts of 13000. All other laboratory investigations were within normal range. Abdominal X-ray was done in order to rule out any mechanical cause of intestinal obstruction, X-ray revealed: Nonspecific bowel gas pattern. However, the small bowel folds appeared thickened (Fig. 2). Findings were suggestive of gastroenteritis. Differentials were bacterial or viral acute gastroenteritis, mesenteric adenitis and intestinal intussusception.

He was given IV fluids along with metronidazole and ceftriaxone keeping bacterial gastroenteritis as provisional diagnosis but his pain and other symptoms did not resolve.





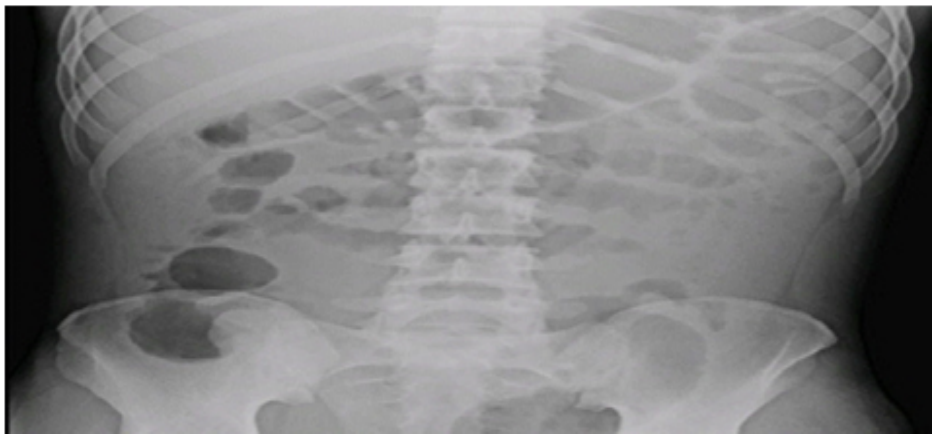


Fig.1.1 1.2 1.3

On 2nd day of his hospital stay he developed purpuric rashes on his feet, buttocks, and lower back Fig.1.1 which were red, raised, palpable and non-tender, and had confluence patternFig.1.2.Our clinical diagnosis was confirmed by skin biopsy of the rash taken from dorsum of right foot. The histopathology revealed classical picture ofHenochSchonleinPurpura with leukocytoclastic vacuities involving the post capillary venules withIgA deposition. His treatment was started on

clinical suspicion prior to availability of biopsy reportwith intravenous prednisolone 40 mg administeredtwice daily. Miraculously his abdominal pain, dysentery and rashes dramatically improved including his ankle joint pain and swelling. He was afebrile throughout the hospital course and was discharged on tapering dose of oral steroids. At his follow up after a week in outpatient clinic his white counts had reduced to normal with complete resolution of rashes over the body, diarrhea, vomiting and joint aches.

DISCUSSION

Henoch-Schönleinpurpura (HSP) primarily affects children with an annual incidence of 13-20cases per 100,000 <17 years old children [3]. Howeverdata regarding its prevalence in Pakistan is not available due to lack of data reporting and registries with limited occurrence of the disease itself. The rare nature of the disease, its self-resolving pattern and limited resources of histopathology to confirm the diagnosis could explain difficulty in diagnosis.HenochSchonleinpurpura is a systemic vacuitieswith multiorgan involvement. According to the European League.Against Rheumatisms, presence ofPurpura or petechial is a mandatory criterion for diagnosis of HSP [4]. However in our case diffuse abdominal pain and acute joint pain were present with no petechiaeorpurpura, which did not raise our suspicion of an autoimmune etiology. Our initial treatment was focused towards an infectious etiology, which had led to gastro intestinal disturbance and blood in stool. However with the appearance of palpable purpuricrashes we started considering about a vasculiticsource of abdominal pain with diarrhea and thus suspicion of HenochSchonleinPurpurawere raised. Amongst the atypical presentations of HSPone case was reported in which the patient presented with status epilepticus with delayed development of rash over two weeks [5]. Local studies fromour region have reported an unusual case of HSP inwhich a 40 year old was diagnosed with Helicobacter pylori infection by upper GI Endoscopy whilehe presented with upper abdominal pain, retrosternal burning and palpable purpura over thelower limbs [6]. A similar case was reported in which patientpresented with abdominal pain mimicking that ofappendicitis and Appendicectomy was performed.He was diagnosed later as a case of HSP when hispain did not resolve post-operatively and he developed purpuric rash on lower extremity [7]. The delayed appearance of rash is very uncommon in HSP patients and in our case this resultedin delay in reaching a final diagnosis. So abdominalpain and acute onset of joint pain in a young patient should raise suspicion of vasculitis syndrome Corticosteroids are effective on arthralgiasandabdominal pain, but ineffective on skin purpura, andthere is a considerable controversy on the benefit of corticosteroids to treat renal involvement and prevent evolution to end-stage renal disease.

Other recent treatment options include Colchicines,Dapsone, anti-leukotriene agents, Azathioprine,Myophenolatemofetil, Cyclosporin A, Cyclophospha-mide and Rituximab depending upon the degree ofinvolvement of organs systems [8]. A meta-analysis byWeiss et al took into account various studies regarding effects of corticosteroids in HenochSchonleinpurpura, Heterogeneity was noted in theresolution of abdominal pain after administration ofsteroids which was likely due to timing of startingcorticosteroids and it was concluded that Corticosteroid treatment did not reduce the median time toresolution of abdominal pain but did significantly reduce the mean resolution time [9]. A 3 year clinical analysis of 254 cases of HSP recommended thatsteroid treatment given to HSP patients with gastrointestinal involvement is helpful to prevent complications including GI bleeding and intussusception however combined therapy of steroids with cyclophosphamide (or cyclosporine if resistant to cyclophosphamide) can be used for patients with nephriticproteinuria [10].

However, more intensivetherapy with methylprednisolone pulse therapyshould be limited to patients at risk of progressionto severe nephritic syndrome and/or crescent glomerulonephritis as discussed in a randomized double-blind placebo-controlled trial [11]. The case just reported was unlikely to be suspected as a case of HSP due to the age of the patient and delayed appearance of

rash. Initial gastrointestinal symptoms were misleading and did not respond to antibiotics and fluid resuscitation. Later with the development of rash suspicion of an autoimmune cause was raised with biopsy provingHenochSchonleinPurpura. Our patient respondedto corticosteroid therapy with cessation of GI bleeding episodes and resolution of diarrhea.

CONCLUSION

Rashes are mandatory criterion for the diagnosis of HenochSchonleinpurpura but it might appear late in the course of the disease which could leadto misdiagnosis, inappropriate treatment and prolonged hospital stay. One should have a high degree of suspicion in patients presenting withdysentery not responding to antibiotic therapy forHenochSchonleinPurpura. Early steroid therapy inHenochSchonleinPurpura has shown various beneficial effects in the resolution of abdominal pain,rashes and other gastrointestinal symptoms; however, its role in prevention and treatment of renal involvement is not yet established.

REFERENCES

1. Torrelo A, Noguera L. Henoch-SchönleinPurpura. In: Silverberg NB, Duran-McKinster C, Tay YK, editors. Pediatric Skin of Color. New York: Springer; 2015. p. 417-9.
2. . Iemsawatdikul K, Daldrup-Link HE. Henoch-Schönleinpurpura. In: Daldrup-Link HE, Newman B. Pearls and Pitfalls in Pediatric Imaging: Variants and Other Difficult Diagnoses. Cambridge: Cambridge University Press; 2014. p. 205.
3. Yang YH, Tsai IJ, Chang CJ, Chuang YH, Hsu HY, Chiang BL. The interaction between circulating complement proteins and cutaneous microvascular endothelial cells in the development of child hood Henoch-SchönleinPurpura [Internet]. PloS One 2015:10:e0120411. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4356510/.
4. Ozen S, Pistorio A, Iusan SM, Bakkaloglu A, Herlin T, Brik R, et al. EULAR/PRINTO/PRES criteria for Henoch- Schönleinpurpura, childhood polyarteritisnodosa, childhood Wegener granulomatosis and childhood Takayasu arteritis: Ankara 2008. Part II: final classification criteria. Ann Rheumatic Dis 2010;69:798-806.
5. Mannenbach MS, Reed AM, Moir C. Atypical presentation of Henoch-Schönleinpurpura. PediatrEmerg Care 2009;25:513-5.
6. Shaikh MZ, Ahmed A. Henoch-Schönleinpurpura associated with gastric helicobacter pylori infection. Pak J Med Sci 2004;20:68-70.
7. Hernstadt HM, Bartlett M, Kausman JY, Macgregor D, Akikusa JD. Complicated Hench-Schönleinpurpura. J Paediatr Child Health 2014.
8. Audemard-Verger A, Pillebout E, Guillevin L, Thervet E, Terrier B. IgA vasculitis (HenochSchönleinpurpura) in adults: Diagnostic and therapeutic aspects. Autoimmun Rev 2015:14:579-85.
9. Weiss PF, Feinstein JA, Luan X, Burnham JM, Feudtner C. Effects of corticosteroid on HenochSchönleinpurpura: a systematic review. Pediatrics 2007;120:1079-87.
10. Peru H, Soylemezoglu O, Bakkaloglu SA, Elmas S, Bozkaya D, Elmaci AM, et al. HenochSchonleinpurpura in childhood: clinical analysis of 254 cases over a 3-year period. ClinRheumatol 2008;27:1087-92.
11. Dudley J, Smith G, Llewelyn-Edwards A, Bayliss K, Pike K, Tizard J, et al. Randomised, double blind, placebo-controlled trial to determine whether steroids reduce the incidence and severity of nephropathy in Henoch-SchonleinPurpura HSP). Arch Dis Child 2013;98:756-63.