

Henoch–Schönlein Purpura with Gastrointestinal Involvement in an Adult Patient: A Case Report

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Abstract

Introduction

Henoch–Schönlein purpura (HSP), also known as IgA vasculitis, is a systemic small-vessel vasculitis characterized by IgA immune complex deposition. Although predominantly a childhood disease with a generally favorable prognosis, adult cases often exhibit more severe systemic involvement, particularly affecting the gastrointestinal tract and kidneys.

Case

A 22-year-old female presented with palpable purpura on the extremities, arthralgia, and melena. Physical examination revealed confluent purpuric lesions over the arms and legs. Endoscopy revealed esophagitis and antral gastritis. Skin biopsy demonstrated flattening of rete ridges and perivascular infiltrates, consistent with leukocytoclastic vasculitis. The patient was treated with intravenous methylprednisolone and supportive therapy, resulting in significant improvement of skin lesions, joint pain, and resolution of gastrointestinal bleeding.

Discussion

Adult HSP is less common but typically has a more severe course compared to pediatric cases. Gastrointestinal involvement, as seen in this case, may present as bleeding, ischemia, or ulceration, and can be life-threatening. Corticosteroids are effective in controlling inflammation and alleviating symptoms but do not prevent renal complications. Continuous renal monitoring is crucial, as kidney involvement remains the primary determinant of long-term prognosis.

Conclusion

This case highlights the clinical relevance of HSP in adults, where gastrointestinal manifestations may predominate and require aggressive management. Long-term follow-up, especially for renal involvement, is essential to improve outcomes.

Keywords: *Corticosteroids, Gastrointestinal bleeding, Henoch–Schönlein Purpura, IgA vasculitis, Palpable Purpura*

Introduction

Henoch–Schönlein purpura (HSP), also known as IgA vasculitis, is a systemic small-vessel vasculitis characterized by deposition of IgA-containing immune complexes in vessel walls, primarily affecting the skin, joints, gastrointestinal tract, and kidneys (Heineke *et al.*, 2017; Reamy *et al.*, 2020). It is the most common vasculitis in childhood, with peak incidence between 4 and 7 years of age, but can also occur in adults where the disease course is typically more severe (Davin, 2006; Perre *et al.*, 2021)

The classic tetrad of HSP includes palpable purpura without thrombocytopenia, arthritis or arthralgia, abdominal pain, and renal involvement (Davin and Coppo, 2014; Hetland, 2017). In children, the prognosis is generally favorable and the disease is often self-limiting, with spontaneous resolution in most cases (Chen and Mao, 2015; Reamy *et al.*, 2020). In

contrast, HSP in adult has a higher risk of complications, including chronic kidney disease and gastrointestinal bleeding (Pillebout *et al.*, 2002; Castañeda *et al.*, 2024).

Gastrointestinal involvement occurs in up to 50–75% of patients, presenting with abdominal pain, melena, hematemesis, or more severe complications such as intussusception and perforation (Hetland, 2017; Castañeda *et al.*, 2024). Recognition of these manifestations is crucial, as they may mimic other abdominal emergencies and delay diagnosis. Early initiation of corticosteroid therapy can improve abdominal and joint symptoms, although its role in preventing renal involvement remains controversial (Davin and Coppo, 2014; Kawasaki, 2022).

This case report presents an adult patient with HSP and predominant gastrointestinal involvement, highlighting the importance of early recognition, appropriate management, and long-term renal monitoring.

Case Presentation

Mrs. JA 22-year-old female was admitted with a three-week history of erythematous rashes on the arms and legs, associated with arthralgia of the shoulders, hips, and knees. Three days before admission, she developed melena accompanied by nausea and weakness. The patient had a history of a similar episode in 2019, diagnosed as Henoch–Schönlein purpura. There was no family history of similar illness.

On examination, she appeared moderately ill with blood pressure 121/84 mmHg, 77 beats/min, 20 breaths/min, and temperature 36.6°C. Multiple palpable purpura were observed symmetrically on both forearms and lower legs, with some confluent lesions.



Figure 1. Multiple discrete palpable purpura, some confluent, on the right and left forearm regions (Yellow Arrow)(A, B), and multiple discrete palpable purpura, some confluent, on the right and left crural regions (Yellow Arrow)(C, D).

Esophagogastroduodenoscopy (EGD) revealed esophagitis and antral gastritis. Skin biopsy demonstrated flattening of rete ridges in the epidermis and perivascular inflammatory infiltrates in the dermis, without eosinophils or signs of malignancy.

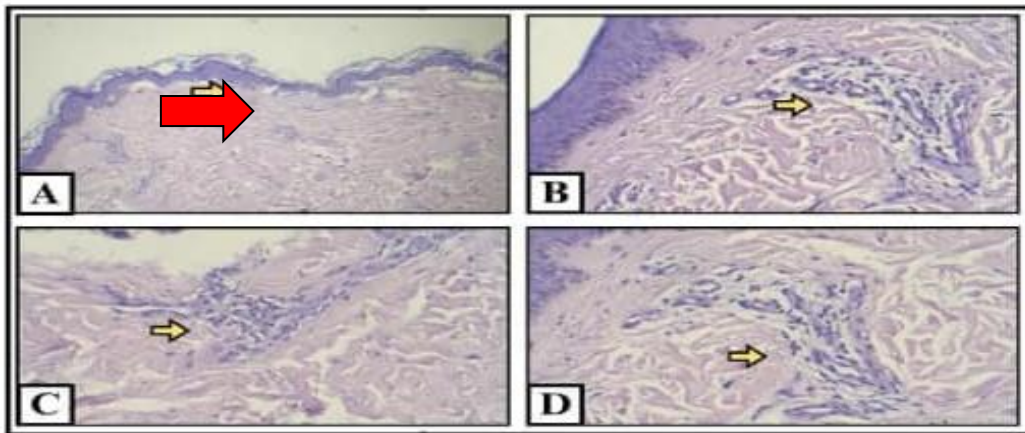


Figure 2. Histopathological examination with HE staining and 10x magnification, revealed flattened rete ridges without evidence of malignancy in the epidermis (Red Arrow)(A), and perivascular infiltrates (yellow arrows) (B, C, D).

The patient was diagnosed with Henoch–Schönlein purpura with gastrointestinal involvement. She received intravenous methylprednisolone (62.5 mg/day), tranexamic acid, ranitidine, ondansetron, and supportive intravenous fluids for six days. After 6 days of treatment in the hospital, the patient was allowed to go home and was given methylprednisolone which was tapered off to half the dose for 1 week. This patient has received 6 days of inpatient care in the hospital, the patient’s condition had improved, with no joint pain in the hands and feet, and the skin lesions had completely resolved. On physical examination, the patient’s rash had improved, with no new lesions appearing. She was followed up three times after leaving the hospital. At one week post discharge, she remained stable with no new or relapsing lesions, no joint pain, and no recurrence of melena. At the two-week follow-up, her condition was still good, with no skin lesions, no joint pain, and no gastrointestinal complaints. At the one-month follow-up, the patient continued to do well, with no signs of relapse, no joint pain, and no melena. Further monitoring is focused on renal function, as the most common and serious complication is IgA nephritis, with periodic urinalysis performed to detect hematuria and proteinuria.

Discussion

Henoch–Schönlein purpura (HSP), or IgA vasculitis, is a leukocytoclastic vasculitis involving small vessels with immune complex deposition, predominantly IgA1, in post-capillary venules, glomeruli, and gastrointestinal vessels (Heineke *et al.*, 2017). It is the most common vasculitis of childhood, but its occurrence in adults is less frequent and often associated with a more severe and protracted clinical course, in some studies, Henoch–Schönlein purpura (HSP) has an annual incidence of approximately 6–22 cases per 100,000 children, reaching up to 30 per 100,000. Approximately 90% of cases occur in children under 10 years old, with a peak incidence at ages 4–6 years. This indicates that HSP is much less common in adults with an incidence of only 0.1–5.1 per 100,000 per year accounting for approximately 10% of all cases. Despite its lower frequency, HSP in adults tends to present with more severe manifestations particularly with renal involvement. (Davin and Coppo, 2014; Perre *et al.*, 2021). This case of a 22-year-old female presenting with palpable purpura, arthralgia, and gastrointestinal bleeding illustrates several important aspects regarding diagnosis, management, and prognosis in adult-onset HSP.

The diagnosis of HSP is primarily clinical, based on the presence of palpable purpura without thrombocytopenia in combination with systemic features such as abdominal pain, arthritis, or renal involvement (Reamy *et al.*, 2020). In this patient, renal function tests showed normal serum creatinine and blood urea nitrogen levels, indicating no significant renal involvement at the time of evaluation, although continued monitoring is essential given the risk of delayed renal manifestations in adult HSP. In our patient, the hallmark manifestation

was purpura on both upper and lower extremities, associated with joint pain and gastrointestinal symptoms. The presence of melena and endoscopic findings of esophagitis and antral gastritis underscored gastrointestinal involvement, which is reported in up to 50–75% of cases (Hetland, 2017; Castañeda *et al.*, 2024). Gastrointestinal vasculitis results from IgA deposition within intestinal vessel walls, leading to ischemia, ulceration, and in severe cases, intussusception or perforation. Adults are particularly at risk for more severe gastrointestinal manifestations compared to children, and early recognition is critical to prevent life-threatening complications (Pillebout *et al.*, 2002; Davin and Coppo, 2014).

Histopathological examination of HSP typically reveals leukocytoclastic vasculitis, characterized by fibrinoid necrosis of vessel walls, neutrophilic infiltration, nuclear debris ("leukocytoclasia"), and extravasation of red blood cells (Heineke *et al.*, 2017). Direct immunofluorescence is regarded as the gold standard for diagnosis, demonstrating IgA deposition within the vessel wall (Heineke *et al.*, 2017). In this case, biopsy revealed flattened rete ridges and perivascular infiltrates without eosinophils or malignant features, which supports the diagnosis of small-vessel vasculitis consistent with HSP. Although IgA staining was not performed, the clinical presentation and histopathological pattern were adequate for diagnosis.

The therapeutic approach in HSP depends on severity and organ involvement. While many pediatric cases resolve spontaneously with supportive care, adults often require systemic corticosteroids due to the higher frequency of severe abdominal and renal disease (Davin and Coppo, 2014; Reamy *et al.*, 2020). Corticosteroids, such as the intravenous methylprednisolone administered in this case, are effective in reducing inflammation, alleviating abdominal pain, controlling gastrointestinal bleeding, and improving joint symptoms (Castañeda *et al.*, 2024). However, multiple studies emphasize that steroids do not necessarily prevent the development of nephritis, which remains the major determinant of long-term outcome (Davin and Coppo, 2014; Cao *et al.*, 2023). For patients with severe or refractory disease, additional immunosuppressive agents such as cyclophosphamide, azathioprine, mycophenolate mofetil, or biologic therapies like rituximab may be considered (Maritati *et al.*, 2020; Perre *et al.*, 2021).

Renal involvement is the most serious long-term complication of HSP and is reported in 20–50% of children but up to 85% of adults, with risks of chronic kidney disease and end-stage renal failure being higher in the latter group (Pillebout *et al.*, 2002; Davin and Coppo, 2014). Risk factors for poor renal outcome include older age at onset, nephrotic-range proteinuria, persistent hematuria, hypertension, and crescentic glomerulonephritis on biopsy (Davin and Coppo, 2014). Although our patient did not present with renal involvement during admission, careful long-term follow-up is essential, as kidney manifestations may develop weeks to months after the initial presentation (Xu *et al.*, 2022; Sestan and Jelusic, 2023). Monitoring should include regular urinalysis, renal function assessment, and blood pressure measurement.

This case underscores the importance of recognizing HSP in adults not merely as a benign vasculitis but as a potentially severe systemic disease. Gastrointestinal bleeding, as observed here, can dominate the clinical picture and requires prompt intervention. The patient responded well to corticosteroid therapy with resolution of purpura, arthralgia, and melena, consistent with literature demonstrating steroid efficacy in controlling acute systemic manifestations (Reamy *et al.*, 2020; Castañeda *et al.*, 2024). Nevertheless, the risk of relapse or delayed renal involvement remains a major concern, emphasizing the need for vigilant long-term follow-up and multidisciplinary care, including dermatology, gastroenterology, and nephrology input.

Conclusion

Henoch–Schönlein purpura in adults is a rare but clinically significant condition with a more severe disease course than in children. Gastrointestinal bleeding, as demonstrated in this case, can be the dominant manifestation and requires early recognition and management. Corticosteroids are effective for symptom control, but vigilant long-term monitoring for renal involvement remains critical for improving patient outcomes.

Ethical Consideration

The study has received approval from the ethical committee, with letter number : 2.161/X/HREC/2025

Conflict Of Interest

All authors declare that they have no conflicts of interest

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