Case Report

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Henoch-Schönlein Purpura in a 5-Year-Old Boy : Case Report

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Abstract

Henoch-Schönlein Purpura (HSP) is a common vasculitis in children, characterized by a purpuric rash, abdominal pain, arthritis, and renal involvement. This case report describes a 5-year-old boy presenting with these classic symptoms. Laboratory findings included elevated serum IgA and microscopic hematuria without thrombocytopenia. Diagnosis was confirmed based on clinical presentation and laboratory results. The patient was managed with supportive care, including pain management and hydration, and monitored for renal complications. This case highlights the importance of recognizing HSP's clinical features and the need for careful monitoring of renal function to prevent long-term complications.

Keywords:- Henoch-Schönlein Purpura, IgA Vasculitis,Pediatric Vasculitis, Renal Involvement

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INTRODUCTION

Henoch-Schönlein Purpura (HSP), also known as IgA vasculitis, is the most common systemic vasculitis in children, predominantly affecting those between the ages of 3 and 15 years. It is characterized by the deposition of IgA-containing immune complexes in the small vessels, leading to inflammation and damage. HSP primarily involves the skin, gastrointestinal tract, joints, and kidneys, and its etiology is often linked to infections, medications, and vaccinations, although the precise cause remains unclear.[1]

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The epidemiology of HSP shows a higher incidence in the winter and fall months, possibly due to the increased frequency of infections during these times. It affects boys slightly more than girls, with a male-to-female ratio of approximately 1.5:1. Pathophysiologically, HSP is an immune-mediated condition where IgA immune complexes deposit in small vessels, causing a leukocytoclastic vasculitis. This results in a cascade of inflammatory responses, leading to the classic clinical manifestations of the disease. [2]

Clinically, HSP presents with a distinctive purpuric rash, typically on the lower extremities and buttocks, arthralgia or arthritis, abdominal pain, and renal involvement. The rash is palpable and non-blanching, which is a hallmark of the condition. Gastrointestinal symptoms can include colicky abdominal pain and, in severe cases, intussusception. Renal manifestations range from mild hematuria and proteinuria to more severe nephritic or nephrotic syndrome. Diagnosis is primarily clinical, supported by laboratory findings of elevated IgA levels and histopathological examination of skin or renal biopsy showing IgA deposition. [3]

An important finding in HSP is the palpable purpura without thrombocytopenia or coagulopathy, distinguishing it from other causes of purpura. Renal involvement, when present, can be detected by urinalysis showing hematuria or proteinuria, and serum creatinine levels can help assess renal function. [4]

CASE REPORT

On physical examination, a 2.5 cm firm, round, A 5-year-old boy presented to the pediatric emergency department with a 3-day history of a rash, abdominal pain, and joint swelling. His parents reported that the rash began on his legs and spread to his buttocks and arms. He also experienced intermittent colicky abdominal pain and swelling in his knees and ankles. There was no significant medical or family history, and he had not been on any recent medications.

On physical examination, the patient appeared mildly distressed due to pain. He had a palpable purpuric rash over his lower extremities, buttocks, and forearms. His knees and ankles were swollen and tender, with a limited range of motion. Abdominal examination revealed mild tenderness in the lower quadrants without guarding or rebound tenderness.

Laboratory investigations showed a normal complete blood count with a platelet count of 310,000/µL, normal coagulation profile, and elevated C-reactive protein (CRP) of 20 mg/L (normal: <5 mg/L). Urinalysis revealed microscopic hematuria (10-15 red blood cells per high-power field) and mild proteinuria (1+). Serum creatinine was 0.4 mg/dL (normal for age: 0.3-0.7 mg/dL), indicating normal renal function. Serum IgA levels were elevated at 3.5 g/L (normal: 0.5-2.5 g/L).

Abdominal ultrasound was performed to rule out intussusception and showed no abnormalities. Given the clinical presentation and laboratory findings, a diagnosis of Henoch-Schönlein Purpura was made. The patient was admitted for observation and management of symptoms. He was started on oral hydration, pain management with acetaminophen, and monitoring of renal function and gastrointestinal symptoms.

During his hospital stay, the patient's abdominal pain resolved, and the joint swelling improved. The rash remained but began to fade after a few days. Follow-up urinalysis showed persistent microscopic hematuria but no worsening of proteinuria. The patient was discharged with instructions for outpatient follow-up to monitor renal function and any recurrence of symptoms.

Lab Investigation	Result	Reference Range
Platelet count	310,000/µL	150,000-450,000/µL
CRP	20 mg/L	<5 mg/L
Serum creatinine	0.4 mg/dL	0.3-0.7 mg/dL
Serum IgA	3.5 g/L	0.5-2.5 g/L
Urinalysis	-	-
- Hematuria	10-15 RBC/HPF	Negative
- Proteinuria	1+	Negative

Table 1 : Lab Investigations in studied cases.

DISCUSSION

Henoch-Schönlein Purpura (HSP) is a self-limiting vasculitis that typically affects children. The case presented highlights the classic features of HSP: palpable purpura, abdominal pain, and arthritis.[5] The diagnosis was supported by elevated serum

IgA levels and the absence of thrombocytopenia or coagulopathy. Renal involvement, indicated by microscopic hematuria and proteinuria, was monitored to prevent potential long-term complications.[6]

An important discussion point in HSP is the management of severe gastrointestinal or renal complications. Early identification and supportive treatment are crucial.[7] In cases with significant renal involvement, corticosteroids or immunosuppressive therapy may be considered, although the benefits are still under investigation. The case presented did not require such interventions, but close follow-up was essential.[8]

CONCLUSION

Henoch-Schönlein Purpura is a common pediatric vasculitis with a characteristic clinical presentation. Early recognition and supportive care are vital, particularly for monitoring potential renal involvement. This case underscores the importance of a thorough clinical and laboratory evaluation to manage and follow up on HSP effectively.

Conflict of interest
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