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# HENOCH-SCHONLEIN PURPURA IN PAEDIATRICS: A CASE REPORT

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**ABSTRACT**
Vasculitis (IgAV), previously known as Henoch-Schonlein purpura (HSP), primarily involves small blood vessels and is characterized by inflammation in various organs. This case report describes a 5-year-old male with erythematous, nonpruritic rash which progressed proximally from both feet to thighs and upper extremities including palms and soles, abdominal pain and joint swelling. Vasculitis is managed with corticosteroids and other anti-inflammatory, immunosuppressive, and supportive therapies to improve symptoms and preserve kidney function.

**KEYWORDS:** Henoch-Schonlein purpura, IgA, inflammation, Palpable Purpura, Corticosteroids.

## INTRODUCTION

A vasculitis (IgAV), previously known as Henoch-Schönlein purpura (HSP), primarily involves small blood vessels and is characterized by inflammation in various organs. The hallmark of IgAV is the deposition of immunoglobulin A (IgA) in the affected vessels, leading to the symptoms associated with the disease. IgAV commonly affects the **skin**, **joints**, **gastrointestinal tract**, and **kidneys**.[1] The skin involvement often presents as a palpable purpura, especially on the lower extremities, which is a classic sign. Joint involvement typically leads to arthralgia or arthritis, particularly in the knees and ankles. Gastrointestinal involvement can cause abdominal pain, nausea, vomiting, and sometimes gastrointestinal bleeding, which is a potentially serious complication.

Renal involvement, although not always present, can lead to **glomerulonephritis**, which may result in **renal failure** in severe cases. The kidneys' condition is one of the most important factors in determining the disease's prognosis, as renal complications can cause long-term damage.

The **central nervous system (CNS)** and **lungs** are affected less frequently, but when they are involved, it can lead to more serious outcomes such as **seizures**, **stroke**, or **respiratory distress**. IgA vasculitis involves various small vessels as well as the skin, joints, gastrointestinal tract, and kidneys.[2] The skin manifestation of IgA vasculitis is palpable purpura commonly distributed in the lower extremities and sometimes the upper limbs and trunk. Among the small vessels, the blood vessels in the skin are mainly affected, predominantly capillaries, venules, or arterioles. The histology of this purpura exhibits nuclear dust, extravasation of erythrocytes, and inflammatory cell infiltration surrounding the affected vessels with IgA deposition.[3]

Approximately 65% of patients with IgA vasculitis experience abdominal pain. In addition, 30% of patients experience gastrointestinal bleeding. Gastrointestinal symptoms generally appear within 1 week after the onset of purpura in the skin.

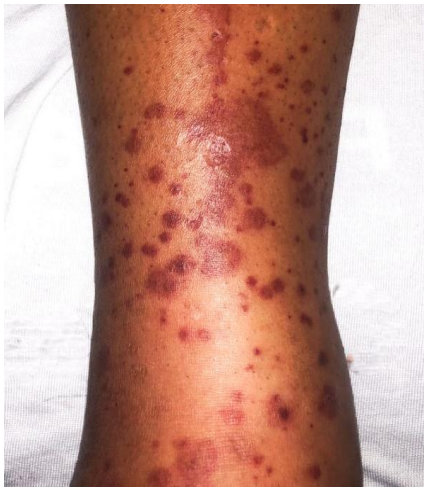
Kidney involvement is the most important organ dysfunction in determining the therapeutic options for IgA vasculitis and influencing its prognosis. IgA vasculitis in adult patients showed a high prevalence of IgA nephritis, with a tendency to be severe compared with that in children.[4]

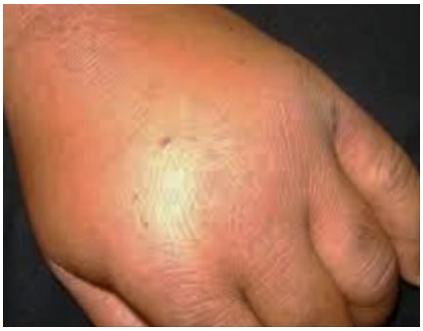
Treatment options for IgA vasculitis include corticosteroids (prednisolone), which improve cutaneous symptoms and renal function, though not preventing recurrence. Colchicine and dapsone have anti-inflammatory effects, with dapsone showing therapeutic

potential for cutaneous purpura. Intravenous immunoglobulin reduces proteinuria and improves renal function. Rituximab is effective for refractory cases. ACE inhibitors support renal function in IgA nephritis, while omega-3 fatty acids show benefits in maintaining renal health. Immunosuppressive agents like cyclophosphamide and azathioprine are effective when combined with corticosteroids. Narsoplimab, targeting the lectin pathway, shows potential in refractory cases of IgA nephritis.[5]

## CASE PRESENTATION

A 5-year-old, male child presented to the paediatrics outpatient department with complaints of erythematous, nonpruritic rash which progressed proximally from both feet to thighs and upper extremities including palms and soles, abdominal pain and joint swelling. On physical examination, there was pharyngeal erythema, petechiae on the soft palate, cervical lymphadenopathy, a nodular, and nontender, non-blanching purpuric rash involving both upper and lower extremities with nonpitting pedal oedema. The child was not having a past medical or medication history. His blood pressure, blood routine and all other routine investigations including kidney function test were normal. due to the subjective evidence, it was confirmed that the patient is having Henoch-Schönlein purpura (HSP). He was treated with inj. Hydrocortisone, inj. ranitidine and syp. Paracetamol during his hospitalized days. And after discharge syp. Prednisolone, syp. Paracetamol and syp. Ranitidine was given.





Henoch-Schönlein purpura (HSP) is an immunoglobin A (IgA)-mediated systematic vasculitis affecting the vasculature of several systems including the gastrointestinal tract, renal system, skin, and joints.

## CASE DISCUSSION

IgA vasculitis is the most frequently encountered type of vasculitis in the pediatric population. It is typically marked by the presence of palpable purpura, especially noticeable on the lower limbs, and is commonly associated with joint discomfort, gastrointestinal symptoms, and possible kidney involvement.[1] HSP is the most common systemic vasculitis in children with an annual incidence of Six to 22 per 100,000 person-years in children and 3.4 to 14.3 per 100,000 person-years in adults. The Mean age of onset of HSP is six years old and it is twice as common in males than in females. There Are few reports presenting HSP in female adults as discussed and the atypical demographics of our patient Could account for her delayed diagnosis.[6]

In our study a 5-year-old boy was brought to the pediatric outpatient clinic with a history of non-itchy, red skin rash that began on both feet and gradually extended upward to the thighs, upper limbs, including the palms and soles. Alongside the rash, he experienced abdominal discomfort and joint swelling. IgA vasculitis is managed with corticosteroids and other anti-inflammatory, immunosuppressive, and supportive therapies to improve symptoms and preserve kidney function. Here he was treated with inj. Hydrocortisone, inj. Ranitidine and syp. Paracetamol during his hospitalized days.

Zineb Alfath et al highlights an example of a patient with HSP who was later diagnosed with neuroblastoma. The phenomenon of HSP associated with malignancy has been described in the literature but typically in older males with a median age of 60. This patient presented with classic features of HSP including lower extremity purpuric rash, abdominal pain and arthralgias, and scrotal swelling. However, he also had atypical features that prompted further evaluation for an underlying disease. These atypical features included recurrent fever, severe limb pain out of proportion to that typically seen in HSP and without arthritis, a high degree of systemic inflammation, and long length of course. This case highlights the importance of maintaining a broad differential in the setting of recalcitrant HSP. Providers should utilize laboratory markers and peripheral smear findings to guide the diagnostic work-up, and exercise caution when prescribing steroids for atypical presentations of vasculitis.

Hung-Wen Su et al was found that their patient met the criteria of HSP. Typical skin manifestations of HSP include palpable Purpura and petechiae. However, erythematous maculopa-Pules and urticarial lesions have also been reported. Hemorrhagic bullous and ulcerative lesions are rare in Pediatric patients, and the diagnosis of bullous HSP can Be challenging. The bullous lesions that

occur in children Include erythema multiforme, toxic epidermal necrolysis, Bullous congenital ichthyosiform erythroderma, epider-Molysis bullosa, bullous pemphigoid, pemphigus, linear IgA dermatosis, bullous systemic lupus erythematosus, Bullous impetigo, eczema herpeticum, and dermatitis Herpetiformis. However, bullous lesions are relatively Common in adult HSP, reportedly occurring in 16% to 60% of cases. Hemorrhagic bulla is a rare cutaneous manifestation in Children with HSP. This report aims to raise awareness of This atypical type of HSP. The use of corticosteroids may Be beneficial for patients with bullous HSP. In general, Most patients with bullous HSP have a good prognosis.[7]

Raja Sood et al was found that A 22-year-old female presented to her general practitioner with a one-day history of sudden onset right-Sided abdominal pain, vomiting, and green-colored loose stool. In addition, the patient complained of an Acute onset of mild oligoarthropathy affecting her wrists and knees. An integrated multidisciplinary approach is needed to effectively diagnose and safely manage and monitor Patients presenting with HSP. Although self-limiting in nature, HSP has the potential to manifest into life-Threatening conditions such as end-stage renal failure. This emphasizes the importance of early diagnosis And management. Our case sets a precedence for clinicians to consider HSP in a wider demographic profile who may present atypically.[6]

## CONCLUSION

This case underscores the classical presentation and effective management of IgA vasculitis (Henoch-Schönlein Purpura) in a pediatric patient. Despite the self-limiting nature of the disease in many children, timely recognition and appropriate treatment are critical in preventing serious complications, particularly renal involvement. The child in this report responded well to corticosteroid therapy, with resolution of cutaneous, gastrointestinal, and joint symptoms, and no evidence of renal impairment. Overall, this case reinforces the need for vigilant monitoring and individualized treatment strategies to ensure favorable outcomes in pediatric vasculitis.

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## CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

## ETHICAL STATEMENT

Ethical approval is not applicable in this case report.

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