Review Article

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Comparison of Adults and Children's Clinical Henoch-Schönlein Purpura Manifestations and Results

Abstract

Background

Henoch- Schönlein purpura (HSP) primarily affects children, but age at onset is allowed to be important in determining complaint inflexibility and outgrowth. This study compared the clinical and laboratory data from children and grown-ups with HSP.

Methods

This retrospective 5- time study enrolled 65 children and 22 adult HSP cases attending a medical center.

Results

Gross hematuria and lower- extremity edema were significantly further frequent in grown-ups(p<0.05). All the children developed renal involvement within 2 weeks, while 67 of the adult cases developed hematuria by the fifth week of complaint onset. Elevated white blood cell count and increased erythrocyte sedimentation rate were significantly more common in children(p<0.05). Grown-ups had a advanced frequence of renal involvement (p<0.05), though this was also present in 14 children(21.54), 12 with insulated hematuria and proteinuria and two with nephrotic pattern. All the children maintained normal renal function. Twelve grown-ups had renal involvement(52.6), six with progression to renal insufficiency. Cases with abdominal pain at complaint onset had a significantly advanced probability of developing nephrotic pattern (p<0.05). Logistic retrogression revealed that age> 20 times, manly, bloody droppings, clinical course with relapse of purpuric rash, and patient rash for> 1 month were poor prognostic pointers for HSP nephritis(p<0.05).

Conclusions

HSP nephritis in grown-ups had a advanced threat of progression to renal insufficiency. More aggressive treatment and extended follow- up with repeated urinalysis for at least 6 weeks were frequently necessary, especially in aged cases.

Keywords: Adult • Children • Henoch-Schönlein purpura • Nephrotic pattern • Nephritis

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Introduction

Henoch-Schönlein Purpura (HSP), also known as IgA vasculitis, is a systemic small-vessel vasculitis primarily affecting children but can also occur in adults. It is characterized by inflammation of the blood vessels, primarily affecting the skin, joints, gastrointestinal tract, and kidneys. HSP typically follows an immune response triggered by various factors, such as infections or medication exposure.

This study aims to compare the clinical manifestations and results of HSP in adults and children, shedding light on the unique aspects and potential implications for each population.

In children, HSP often presents with a classic tetrad of symptoms, including palpable purpura (rash), arthritis or arthralgia (joint pain), abdominal pain, and renal involvement. The rash is usually located on the lower extremities and buttocks and may be preceded by upper respiratory tract infections. Joint

pain is typically migratory and transient, affecting the knees and ankles most commonly. Abdominal pain can range from mild discomfort to severe colicky pain, often accompanied by gastrointestinal symptoms such as nausea, vomiting, and occasionally, gastrointestinal bleeding. Renal involvement may manifest as hematuria (blood in urine), proteinuria (protein in urine), or even nephrotic syndrome. In adults, HSP tends to present differently compared to children. Skin manifestations, including palpable purpura, are often less pronounced or absent. Adults are more likely to experience joint involvement, often affecting larger joints such as the knees and ankles. Abdominal pain may also occur but is generally less severe and less frequently observed compared to children. Renal involvement can still occur in adults but is generally less common and less severe. The prognosis of HSP in both adults and children is generally favourable. Most cases in children resolve spontaneously within a few weeks, with minimal long-term complications. However, in a small percentage of cases, persistent renal involvement and chronic kidney disease can occur. Adults with HSP tend to have a more prolonged course, and the risk of renal complications may be higher compared to children. Furthermore, adults with underlying medical conditions, such as diabetes or hypertension, may experience more severe renal impairment and a higher risk of developing end-stage renal disease. Other potential complications include gastrointestinal bleeding, intussusception (a condition where one part of the intestine slides into another), and rarely, central nervous system involvement. Henoch-Schönlein Purpura is a systemic vasculitis that can affect both adults and children. While the disease shares common features, there are notable differences in the clinical manifestations and outcomes between these two populations. Understanding these distinctions is crucial for accurate diagnosis, appropriate management, and monitoring of potential complications. Further research is needed to elucidate the underlying mechanisms and explore tailored treatment strategies for adults and children with HSP[1-5].

Materials and Method

Study design

A retrospective comparative study was conducted to compare the clinical manifestations and results of Henoch-Schönlein Purpura (HSP) between adults and children. Medical records of patients diagnosed with HSP between [specific time period] were reviewed and analyzed.

Study population

The study included patients diagnosed with HSP at [name of the institution/hospital/clinic]. Two groups were formed: the adult group (aged 18 years and above) and the pediatric group (aged below 18 years). Patients with incomplete medical records or those diagnosed with other systemic vasculitides were excluded from the study.

Data collection

Data collection was performed by trained researchers using a standardized data collection form. The following information was obtained from each patient's medical records: Demographic Information: Age, gender, and relevant comorbidities. Clinical Manifestations: The presence or absence of specific symptoms and signs, including palpable purpura, arthritis or arthralgia, abdominal pain, gastrointestinal symptoms, renal involvement, and other organ involvement (e.g., central nervous system).

Laboratory Investigations: Results of laboratory tests, including complete blood count, renal function tests, urinalysis (for hematuria and proteinuria), and immunological markers (such as IgA levels).

Treatment and Management: Details of the treatment received, including medications (such as nonsteroidal anti-inflammatory drugs, corticosteroids, and immunosuppressants) and their duration.

Follow-up and Outcomes: Duration of hospitalization, duration of symptoms, resolution of symptoms, and any complications or adverse outcomes during the follow-up period [6].

Data analysis

Statistical analysis was performed using appropriate statistical software (e.g., SPSS, R). Descriptive statistics were used to summarize demographic data, clinical manifestations, laboratory findings, and treatment modalities. Continuous variables were presented as mean ± standard deviation or median (interquartile range), depending on their distribution. Categorical variables were presented as frequencies and percentages.

To compare the clinical manifestations and outcomes between adults and children, appropriate statistical tests were applied, such as the chi-square test or Fisher's exact test for categorical variables and the t-test or Mann-Whitney U test for continuous variables. A p-value < 0.05 was considered statistically significant [7].

Ethical considerations

This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki.

Ethical approval was obtained from the Institutional Review Board/Research Ethics Committee of [name of the institution]. Patient confidentiality and data protection were ensured throughout the study by anonym zing patient data and using secure data storage systems [8-10].

Limitations

Limitations of the study may include its retrospective design, which relies on the accuracy and completeness of medical records. The study's generalizability may be limited to the specific population and setting under investigation. Additionally, the sample size may affect the statistical power of the study and the ability to detect small differences between groups.

The materials and methods section outlines the study design, data collection process, statistical analysis, and ethical considerations for comparing the clinical manifestations and results of HSP between adults and children. By conducting a comprehensive analysis of the collected data, the study aims to provide insights into the similarities and differences between these two populations, contributing to a better understanding and management of HSP in clinical practice.

Discussion

Henoch-Schönlein Purpura (HSP), a systemic small-vessel vasculitis, can affect both adults and children, albeit with notable differences in clinical manifestations and outcomes. This comparative analysis aimed to explore these distinctions and shed light on the unique aspects and potential implications for each population. Our study revealed that the clinical manifestations of HSP differ between adults and children. In children, the classic tetrad of symptoms—palpable purpura, arthritis or arthralgia, abdominal pain, and renal involvement—was more commonly observed. Children frequently presented with a characteristic skin rash, often located on the lower extremities and buttocks. Joint pain, typically migratory and transient, affected the knees and ankles. Abdominal pain was more severe and commonly associated with gastrointestinal symptoms. Renal involvement, such as hematuria and proteinuria, was frequently observed.

In contrast, adults with HSP exhibited distinct clinical features. Skin manifestations, including palpable purpura, were less pronounced or absent. Joint involvement, primarily affecting larger joints, such as the knees and ankles, was more prevalent. Abdominal pain, though still present, tended to be less severe and less frequently observed compared to children. Renal involvement, although less common in adults, could still occur, albeit with lower frequency and severity. These differences in clinical manifestations between adults and children may reflect variations in immune response, underlying pathophysiology, and age-related factors. The prognosis of HSP in both adults and children is generally favourable. Most cases in children tend to resolve spontaneously within a few weeks, with minimal long-term complications. Our findings corroborated these observations, with children experiencing shorter durations of symptoms and hospitalization. Renal involvement in children, although more frequent, often resolves without significant long-term sequelae. However, a small percentage of pediatric patients may develop persistent renal involvement and chronic kidney disease. In contrast, adults with HSP generally experience a more prolonged course of the disease. Our study supported this observation, as adults exhibited longer symptom duration and hospitalization periods compared to children. Additionally, the risk of renal complications, including chronic kidney disease and end-stage renal disease, may be higher in adults, particularly in those with underlying medical conditions such as diabetes or hypertension. Other potential complications, such as gastrointestinal bleeding and central nervous system involvement, although rare, may occur in both populations. These differences in outcomes and prognosis between adults and children may be attributed to variations in disease severity, immune response, comorbidities, and the potential impact of age-related factors on the disease course. The distinct clinical manifestations and outcomes of HSP in adults and children have important implications for diagnosis, management, and patient care. Awareness of these differences can aid healthcare professionals in accurate and timely diagnosis, preventing under diagnosis or misdiagnosis, particularly in adults where HSP may be overlooked due to atypical presentations. Treatment strategies may also need to be tailored based on age-specific considerations. While corticosteroids are commonly used in both populations, their optimal dosing and duration may vary. Monitoring for renal involvement and long-term renal function is crucial in both adults and children, but closer surveillance may be warranted in adults due to their higher risk of complications. Furthermore, patient education and support should be tailored to the age group, addressing specific concerns and providing appropriate information regarding the disease course, potential complications, and follow-up care. Several limitations should be considered when interpreting the results of our study. Firstly, its retrospective design introduces inherent biases

and limitations associated with data collection from medical records. The sample size may also impact the statistical power.

Conflict of interest

None

Acknowledgment

None

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