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Research Article

HENOCH-SCHONLEIN PURPURA TRIGGERED BY SALMONELLA CHOLERAESUIS INFECTION: A RARE CASE REPORT

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ABSTRACT

Background: The etiology of Henoch-Schonlein purpura(HSP) remains unclear.

Objective: To understand the relationship between salmonella choleraesuis infection and HSP.

Clinical case: A 4-year-old boy was admitted to our institute as a case of salmonella choleraesuis infection. After an interval of one week by the onset of gastrointestinal symptoms he developed symmetricalpurpuric papules at the lower extremities and arthralgia of the ankle joint.He was treated with compound glycyrrhizin, cimetidine, vitamin C and restriction of feeding.And half a month later the clinical finding improved gradually.

Conclusion: Salmonella choleraesuis infection may cause HSP vasculitis.

Keywords: Henoch-Schonlein purpura; Vasculitis; Case report

INTRODUCTION

Henoch-Schonlein purpura(HSP) is a common type of vasculitis in children,with 75% of cases occurring in children between 2 and 11 years of age.Annual incidence of HSP in children is estimated to be 15/100,000 cases. The proportion of males and females in children is close to 2:1. Palpable purpura, arthritis or arthralgia,gastrointestinal involvement with abdominal pain and renal disease are classic manifestations of the disease. HSP is often self-limited, but renal involvement occurs in 40%-50% of patients within four to six weeks of the initial presentation [1]. Gastrointestinal(GI) involvement occurs in 50 to 75% of patients,and abdominal pain, vomiting and GI bleeding are the main findings. Although GI bleeding is generally occult, grossly bloody or melanotic stools are observed in 30% of patients, and intussusception has been reported in 1 to 5% of patients.Steroid treatment rapidly improves abdominal pain and decreases the risk of surgical intervention.

CASE REPORT

A 4-year-old boy was admitted to the Department of Pediatrics of the First Affiliated Hospital of Yangtze University on 15th September 2020, who suffered from fever for 2 days and diarrhea for half a day.His medical history was unremarkable,and no upper airway symptoms were noted before this episode. No family history of systemic disease nor HSP was noted.On physical examination, the vital signs were as follows: blood pressure 90/60 mmHg, respiratory rate, 32/min; body temperature 38.7°C; heart rate, 122/min. His lung auscultation and heart sounds were normal without murmur. The liver and spleen were not touched subcostally.Laboratory testing revealed the following:white blood cell count,6.35×10^9/L;neutrophilic granulocytes,71.6%;hemoglobin,124g/L;platelet count,194×10^9/L,C-reactive protein,53.4mg/L.stool analysis:white blood cell 5-10,occult blood test was positive.A stool culture yielded Salmonella choleraesuis infection.The patient was initially given ceftazidime treatment.The body temperature returned to normal after 5 days of treatment.After an interval of one week by the onset of gastrointestinal symptoms he developed symmetricalpurpuric papules at the lower extremities and arthralgia of the ankle joint.The diagnosis was confirmed as HSP. He was treated with compound glycyrrhizin, cimetidine, vitamin C and restriction of feeding.Two days later the arthralgia and purpura resolved.But this child developed vomiting and abdominal color Doppler ultrasound showed abdominal anaphylactoid purpura.The clinical finding improved gradually within 15 days.

DISCUSSION

Although the etiology is still unclear,HSP is known to develop after upper respiratory infection or drug allergy and is therefore considered an autoimmune disease.In 1990,Fiocchi et al. first discovered that HSP may be related to salmonella infection.To date, there have been only 4 reported cases of HSP with salmonella infection[2-5].To our best knowledge, this is the 1st case of HSP triggered by salmonella choleraesuis infection.This case was diagnosed as HSP according to European League Against Rheumatism/Paediatric

Rheumatology International Trials Organization/Paediatric Rheumatology European Society(EULAR/PRINTO/PRES) criteria[6].In addition,salmonella choleraesuis is also reported in association with various vasculitis forms such as Kawasaki disease and leucocytoclastic vasculitis.

CONCLUSION

Summary, we think that salmonella choleraesuis infection may be stimulant factor for autoimmune reactions and may cause HSP vasculitis. Hence, it may be usefull to investigate the salmonella choleraesuis infection in etiology of HSP cases.

Conflict of interest: None to declare.

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