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Eosinophilic Granulomatosis with Polyangiitis in Pediatrics Patient: A Case Report

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Abstract : Eosinophilic Granulomatosis with polyangiitis (EGPA), formerly known as Churg-Strauss syndrome, is a rare systemic vasculitis of small and medium-sized vessels that primarily develops in middle-aged individuals. It is characterized by asthma, blood eosinophilia, and extra pulmonary manifestations. In childhood, EGPA is extremely rare. Pulmonary and cardiac involvement is predominant in pediatric EGPA, and mortality is substantial. Generally, EGPA will develop in three stages: a) The allergic phase is commonly associated with asthma, allergic rhinitis, and sinusitis, b) the eosinophilic phase, in which the main pathology is related to the infiltration of eosinophilic organs, i.e., lung, heart, and gastrointestinal system, c) vasculitis phase involved purpura, peripheral neuropathy, and some constitutional symptoms. The key to the treatment of EGPA lies in the early diagnosis of the disease. Early application of glucocorticoids and immunosuppressants can improve symptoms and the overall prognosis of EGPA. Case Description: We presented a case of an 8-year-old boy with a history of short asthma, marked eosinophilia, and multi-organ involvement. The extremely high eosinophil level in the blood (72.50%) prompted the examination of eosinophilic leukemia before EGPA diagnosis was made. Subsequently, this disease was successfully treated. This case report shows a typical case of CSS in childhood because of the extreme eosinophilia. It emphasizes the importance of EGPA is a life-threatening cause of children's eosinophilia. Conclusion: EGPA in children has unique clinical, imaging, and histological characteristics different from those of adults. In pediatric patients, the development and diagnosis of systemic symptoms are often delayed, mainly occurring in the eosinophilic phase, which will lead to specific manifestations. At the same time, we cannot detect a genetic relationship related to EGPA.

Keywords : Churg Strauss syndrome, asthma, vasculitis, hypereosinophilia, eosinophilic granulomatosis polyangiitis
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