

A Case of Idiopathic Hypereosinophilic Syndrome with Multiple Serositis

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Hypereosinophilia can be caused by many diseases, such as allergic diseases, parasitic infections, autoimmune diseases, and malignancy. Nonetheless the thorough evaluation, hypereosinophilia of unknown origin still exists. Prolonged eosinophilia of unknown origin influencing organ function classified as idiopathic hypereosinophilic syndrome (iHES). Clinical features of iHES have been reported in various systems such as cutaneous involvement (37%), pulmonary (25%), and gastrointestinal (14%), cardiac (5%), and neurologic (4%) manifestations. Here, we report an unusual case of iHES whose main manifestations were multiple serositis: Peritonitis, Pleuritis, and Pericarditis. A 63-year-old man who suffered from abdominal distention, abdominal pain, and mild dyspnea visited our emergency department. He has hypertension and asthma. In laboratory findings, marked eosinophilia (20,150/ μ L, reference range [$> 1,500/\mu$ L]) was checked with high IgE level (623 kU/L, reference range [> 100 kU/L]). In radiographic studies, there were bilateral pleural effusion, pericardial effusion, and ascites. There was no evidence of infection including bacteria, virus, tuberculosis, and parasite. Based on bone marrow study and PET-CT scan, malignant diseases were excluded. He underwent diagnostic laparoscopic biopsy. In biopsy tissue, subserosal many eosinophils (121/HPF) and chronic inflammatory signs in multiple systems were detected. Prominent eosinophilic inflammation was revealed in ascites, pleural effusion. Pericardial effusion was not aspirated because of the risk benefit. Finally, he was diagnosed to have an iHES and started treatment with high-dose systemic steroid and low dose hydroxyurea. After 5 days of treatment, his symptoms and signs of hypereosinophilia were improved. It is a rare case, to the best of our knowledge, multiple site serositis can be main clinical manifestations of iHES.

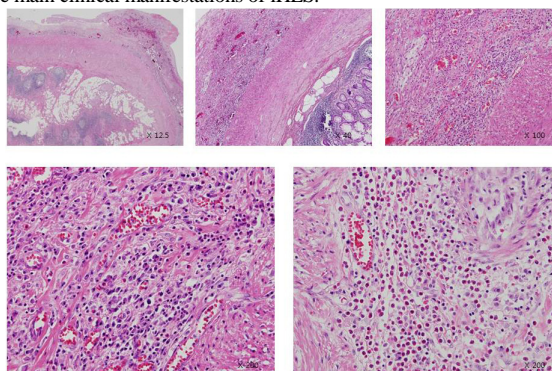


Fig 1. Eosinophil infiltration of appendix (Hematoxylin and eosin stain)

Hypereosinophilic syndrome involving pituitary.

강북삼성병원 내과

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Background: Hypereosinophilic syndrome(HES) constitute a heterogenous group of disease entities manifest by persistent eosinophilia >1500 eosinophils/ml in association with end organ damage or dysfunction, in the absence of secondary causes of eosinophilia. We report a case of HES involving pituitary. **Case:** A 19-year-old man, was admitted to hospital for the investigation of ascites, detected abdominal sonography. We checked routine lab including viral markers and computed tomography(CT) scan. The viral marker was negative and albumin level was within normal. The total leukocyte count was elevated ($36.4 \times 10^3/\text{mm}^3$) and that the eosinophil count was elevated ($30.6 \times 10^3/\text{mm}^3$ [84.1% in the differential leukocyte count]). Peripheral blood smears showed a markedly elevated eosinophil count (30000/uL). CT showed large amount of ascites with normal liver parenchyma. Ascites analysis showed the total leukocyte count was 2645/ mm^3 and that the eosinophil count was 2512/ mm^3 . The patient reported no personal or family history of allergic disease, infection disease. Investigations to look for causes of the eosinophilia (e.g., parasitosis, immunodeficiency and malignant disease) included, tumor marker assays, gastroduodenoscopy, bone marrow biopsy; all yielded normal findings. However, he had reduced axillary and pubic hair so we tested cocktail test. IGF-1 level was lower than normal (49.24ng/ml) and the other hormone level was within normal. Also, the sella MRI was normal. We started oral therapy with the steroid 40mg/day. He visited hospital every 2 weeks for routine check-up including IGF-1, and tapering steroid dose. The blood eosinophil count decreased to $0.872 \times 10^3/\text{mm}^3$ [16.1% in the differential leukocyte count]) and ascites was decreased. His peripheral eosinophilia lasting longer than 6 months and the organ dysfunction and the exclusion of other causes of eosinophilia, a diagnosis of hypereosinophilic syndrome(HES) was made. **Conclusion:** HES is characterized by significant involvement including infiltration of the heart, GI tract, kidney, liver, joints and skin. In this case, he had ascites and low IGF-1 and this report describes a rare case of HES involving pituitary.

