Eosinophilic Empyema

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Abstract:

Introduction: Pleural fluid eosinophilia remains a controversy in etiology and diagnosis. We report a rare case of 6 years old female child with eosinophilic empyema with peripheral eosinophilia which responded to antibiotics, antihelminthics and steroids.

Case summary: A 6 years female child presented with fever on & off for 2 months, cough for 8 days. Examination and CXR revealed left sided pleural effusion. Complete blood counts (CBCs) showed leucocytosis with hypereosinophilia with absolute eosinophil count of 24000/cumm. Pleural tap showed polymorphs of 13000/cumm with predominant eosinophils, proteins of 1.3gm%. HRCT showed left sided effusion with consolidation. Stool microscopy was negative for parasites. Work up for TB was negative, Pleural fluid culture was negative with no fungal hyphae or malignant cells. Peripheral smear for microfilaria after DEC stimulation was negative. Immunodeficiency work up showed very high IgE levels (12000 IU/ml). HIV was negative. Child was treated with intravenous antibiotics, albendazole and diethlycarbamazine for three weeks. While on treatment, patient developed non pitting edema of both upper limbs with itching which responded to steroids in 3 days. Child improved, serial CBC’s showed decrease in eosinophil count. Repeat eosinophil count after four weeks was normal and IgE levels had decreased (7000 IU/ml). Child is healthy and X-rays on follow up after 3 months are normal.