HODGKIN LYMPHOMA MISDIAGNOSED AS DIFFUSE GRANULOMATOUS DISEASE IN A PEDIATRIC PATIENT

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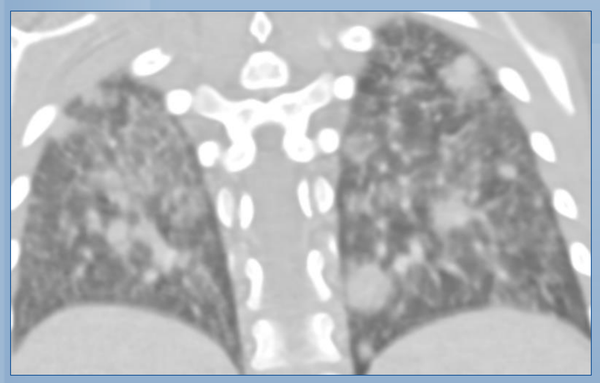
INTRODUCTION

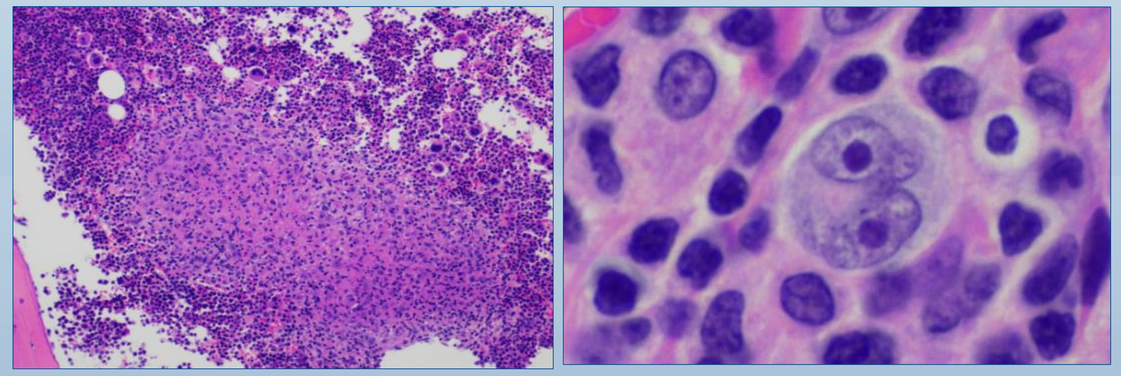
- Hodgkin Lymphoma in the US is most often diagnosed in adolescents
- In developing countries Hodgkin Lymphoma is more common in younger children
- Children diagnosed with lymphoma in the US have higher survival rates compared to children diagnosed in African countries due to multiple barriers
- Treatment with steroids before a diagnosis of Hodgkin Lymphoma is made can often lead to delayed diagnosis
- Here we present a case of delayed diagnosis of Classic Hodgkin Lymphoma in an 8-year-old female after recent immigration to the US and previous treatment with steroids for presumed granulomatous disease



CT chest W IV contrast showing innumerable pulmonary nodules, with multiple foci of consolidation. Image taken on day of admission to our Children's hospital.

Case Presentation

- **An 8 yo female with 15 months of recurrent fevers, weight loss, and hepatosplenomegaly presents 8 days after immigrating from Kenya. Brief description of treatment in Kenya is as follows:**
- Patient was empirically treated with multiple rounds of antibiotics with varying response.
- Recurrent fevers continued and suspicion for juvenile idiopathic arthritis arose, for which she was treated with **6 months of empiric corticosteroid**s and a biologic agent.
- Bone marrow biopsy was obtained showing caseating granulomas, and empiric treatment for TB began.
- Anti-TB medications were discontinued, after development of liver failure.
- Subsequent liver and spleen biopsy with non-caseating granulomas and negative TB stains shortly before immigration.



Left: : bone marrow biopsy showing replacement of marrow with nodular lymph histiocytic aggregates
Right: atypical large cells with bi-lobate vesicular nuclei and moderate eosinophilis cytoplasm consistent with Hodgkin Reed Sternberg (HRS) cells diagnostic of Hodgkin Lymphoma

- **Upon arrival at our children's hospital the patient underwent an extensive infectious disease, inflammatory, and oncologic workup.**
- Initial labs were notable for anemia, thrombocytopenia, hyponatremia, cholestatic liver injury, elevated ESR, CRP, and LDH.
- Abdominal ultrasound revealed hepatosplenomegaly without ascites.
- CT imaging of her chest, abdomen, and pelvis was pertinent for extensive lymphadenopathy, multiple pulmonary nodules, hepatosplenomegaly, and multiple splenic lesions.
- Bronchoscopy with bronchoalveolar lavage was negative for acid fast bacilli, Nocardia, Pneumocystis.
- Ultimately, **bone marrow biopsy and lymph node biopsy revealed a diagnosis of Stage 4b Hodgkin's lymphoma**, mixed-cellularity subtype, with EBV + cells near Reed Sternberg Cells that presumably was partially treated with previous steroids.

CONCLUSION

- Lymphoma in children can be misdiagnosed as it often presents with indolent non-tender lymph nodes.
- Other differentials such as infectious diseases are often top of mind in developing countries rather than cancers.
- High rates of EBV in Africa impacts the epidemiology of Hodgkin lymphomas
- Consider the possibility of malignancy as an underlying cause before starting steroids in patients with non-specific symptoms.
- It is important to maintain a broad differential in children who present with nonspecific symptoms.

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