



A Rare Nematode Infection Presenting as Hypereosinophilia in a Teen with Pervasive Developmental Disorder

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Disclosure

The views expressed are those of the author and do not reflect the official policy of the Department of the Air Force, the Department of Defense or the U.S Government. The investigator has no financial disclosures.



Case

16-year-old male with a history of autism and pica who presented for evaluation of abdominal pain. He presented to his PCM after 2-3 wk h/o abdominal pain, bloating and NBNB emesis which began while on a long hiking trip.

Pt has mild allergies with sneezing, congestion, cough d/t PND, and watery eyes, but was previously started to Zyrtec with some relief of symptoms.

He also has h/o PICA and ingests mostly paper (but also medicines, chemicals, tree bark, sticks, etc), and plays with his own stool.

Family moved to TX in July2020 and lives on base, but MOC reports concern for mold in their house and raccoons playing the yard.



Past Medical History:

- Autism
- PICA
- anxiety
- OCD
- Lactose intolerance

Past Surgical History:

- PETs

Current Medications:

- Zyrtec daily
- Fluoxetine PRN anxiety/OCD
- Miralax
- 10 mg CBD gummies PRN sleep
- Multivitamin
- Calcium/D3 supplement
- Mg supplement
- Fiber gummy



- **Medication Allergies:**

- NKDA including ASA/NSAIDs

- **Social Hx/occupation:**

- Home school (11th grade)

- **Family History:**

- -Asthma: MOC
- -Allergic rhinitis: MOC, both sisters
- -Atopic dermatitis: MOC, both sisters



Physical Exam

- **General:** WDWN, NAD, alert and orientated
Eyes: Conjunctiva clear without discharge or injection
- **ENT/Mouth:** Oropharynx without ulcers or exudates. Nasal mucous pale without discharge, no visible polyposis. TMs visualized without fluid, bulging, or erythema. No cervical lymphadenopathy.
- **Respiratory:** No accessory muscle use. Symmetric rise and fall. Lungs clear to auscultation with good air movement. No wheezes, crackles, or rhonchi.
- **Cardiovascular:** RRR. No murmurs auscultated.
GI: Normoactive bowel sounds, soft, non-distended, non-tender.
Psychiatric: Normal mood and affect
- **Skin:** No visible eczematous or urticarial lesions.



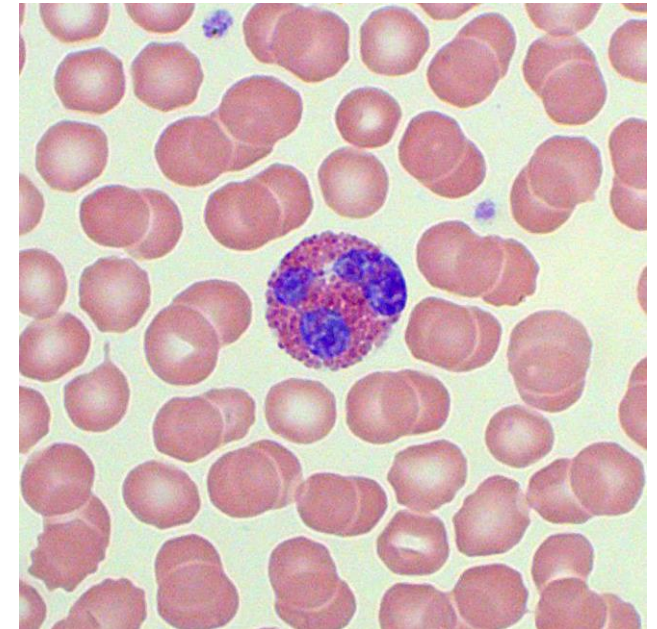
CBC AEC of 4339

Total sIgE 1206.

Immunocap panel was positive for aspergillus, cat, dog, and grass.

Ig quant, LDH, and uric acid were nl.

O&P exam: strongyloides Ab, toxocara Ab, testing were neg,





Defining Eosinophilia

- Eosinophils are terminally differentiated cells of the myeloid lineage
 - 1-2% of peripheral blood leukocytes
- >500 AEC in blood considered “eosinophilia”
 - Categorized as mild (less than 1500 eosinophils per cubic millimeter), moderate (1500 to 5000 per cubic millimeter), or severe (more than 5000 per cubic millimeter).
 - Percentage is not useful, **use absolute**

Troubleshooting:

- Lab mistakes can occur, verify elevation, check prior to glucocorticoids, or repeat when off therapy



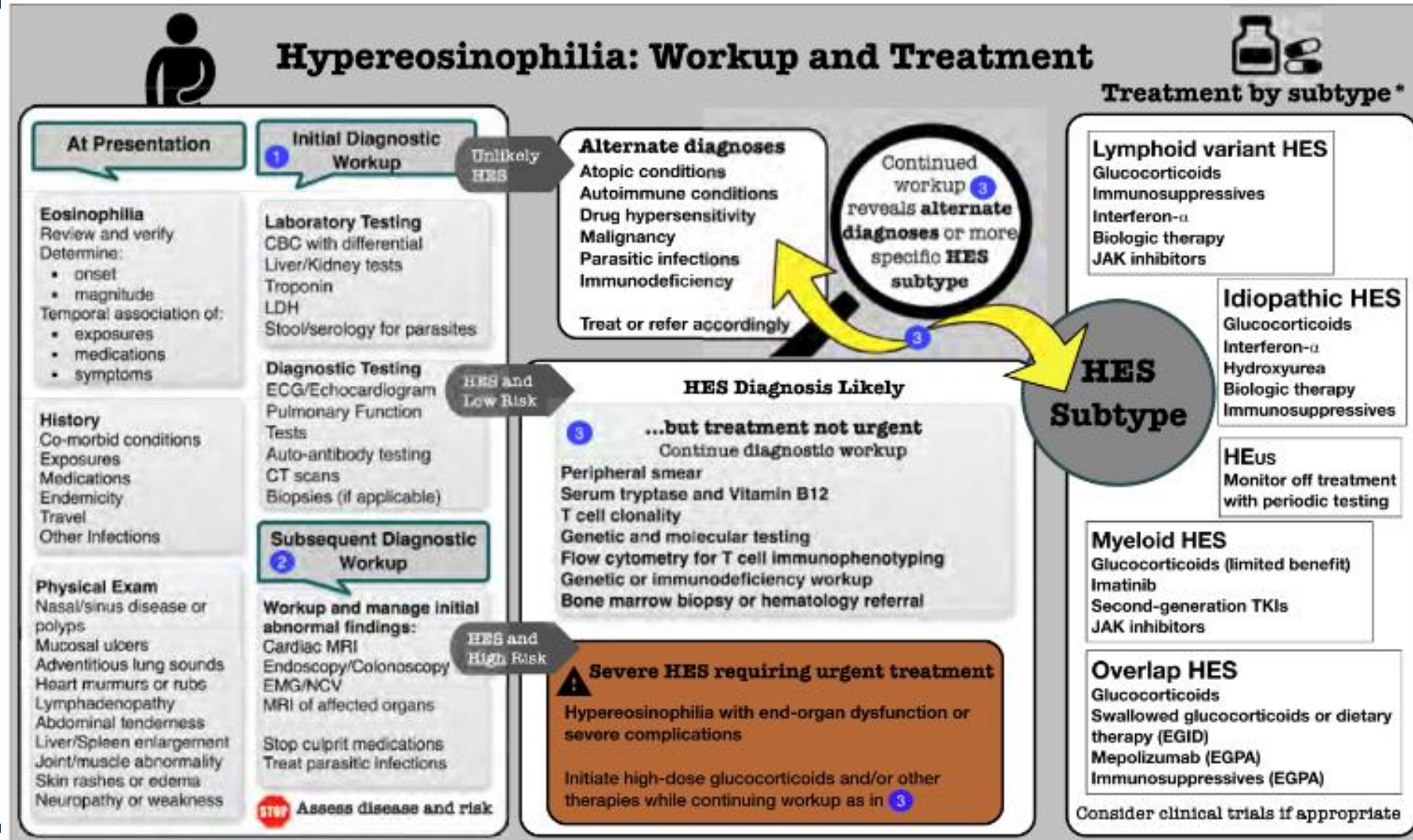
Differential

Condition	Examples
Atopic Conditions	Asthma, atopic dermatitis, Allergic Rhinitis, ABPA
Infections	Parasitic, Fungal, bacterial
Neoplastic disorders	Lymphoma, Leukemia, Solid Tumors
Systemic Autoimmune disorders	Rheumatoid arthritis, IgG4-RD
Primary Immunodeficiency	WAS, STAT3, Omenn's syndrome, DOCK8
Hypersensitivity reactions	Drug or environmental causes
Other	Adrenal insufficiency, irradiation, cholesterol embolization, rare hypereosinophilic syndromes

*list is not all inclusive



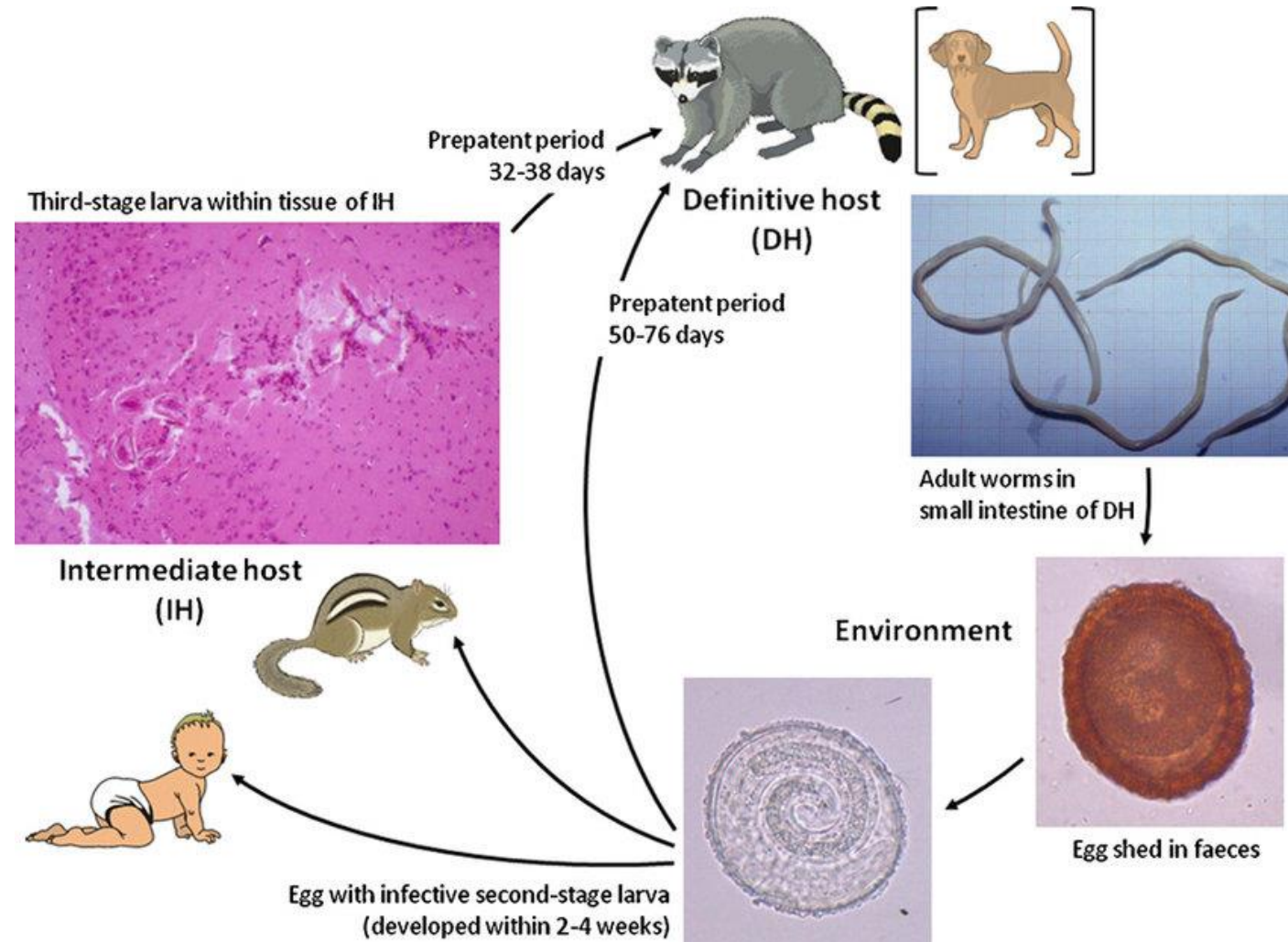
Eosinophilia Evaluation





Eosinophilia

Patient was found to be weakly positive to baylisacaris proyois ab (send out lab)





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