When a Rash and Fever Aren't Cellulitis

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Introduction

Extranodal NK/T cell lymphoma is an aggressive type of non-Hodgkin lymphoma that is rare in the United States. It is most common in Central and South America, and almost always associated with past EBV infection and B symptoms. While this lymphoma most commonly involves the nose and sinuses, it may involve the skin, gastrointestinal tract, or eyes.

Presentation

- 42-year-old male presented to the ED with 5 months of worsening fatigue, unintentional weight loss, fevers, and night sweats, 4 months of enlarging right flank rash, and 2 months of progressive left eye vision loss.
- 2 weeks prior, he was admitted to an outside hospital for incision and drainage of a right flank mass. He received antibiotics for cellulitis and was discharged with cultures pending.
- Symptoms persisted, wound was non-healing, and bacterial culture was negative, so the patient was referred to the ED for re-evaluation.

Patient Data

Medical History: Appendectomy in 2004.

Medications: None.

Social History:
- Immigrated from Honduras 15 years prior. No tobacco, alcohol, or illicit drug use. Patient lived with his wife and 3 children. He worked in construction. He denied any history of sexually transmitted infections.

Physical Findings:
- Vital signs within normal limits.
- No lymphadenopathy or joint pain.
- Eyes: Afferent pupillary defect, poor visual acuity, temporal field deficit of left eye. Slit lamp exam revealed keratic precipitates, white cells in anterior chamber, and vitreous cells. B scan showed vitreous debris without evidence of retinal detachment.
- Skin: 9cm x 7cm x 1.8cm right flank necrotic wound with hardened edges and black discoloration, but no erythema, drainage, or odor.

Laboratory Data:
- WBC 3.8 (54% neutros, 28% lymphs, 18% monos, 0.3% basophils, 0.3% eos)
- AST 209U/L, ALT 301U/L, LDH 858U/L
- Negative serologies for hepatitis, RPR, HIV, HSV, VZV, HTLV I/II, toxoplasma IgG, lysozyme, Lyme Ab, and ANA.

Imaging:
- CXR and head CT normal.
- CT abdomen & pelvis revealed right flank necrotic lesion with inflammatory changes.

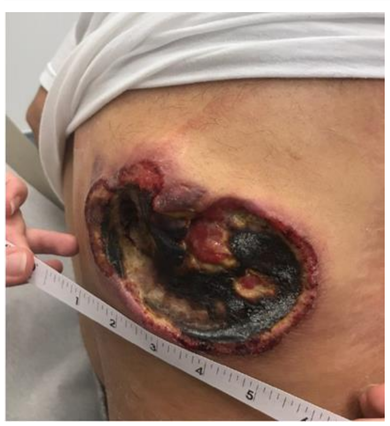

Figure 1. 9cm x 7cm x 1.8cm right flank wound

Pathology

Flow cytometry detected an atypical CD3-/CD2+/CD56+/CD94+ NK-cell population, consistent with extranodal NK/T-cell lymphoma. Bone marrow was negative for lymphoma involvement.

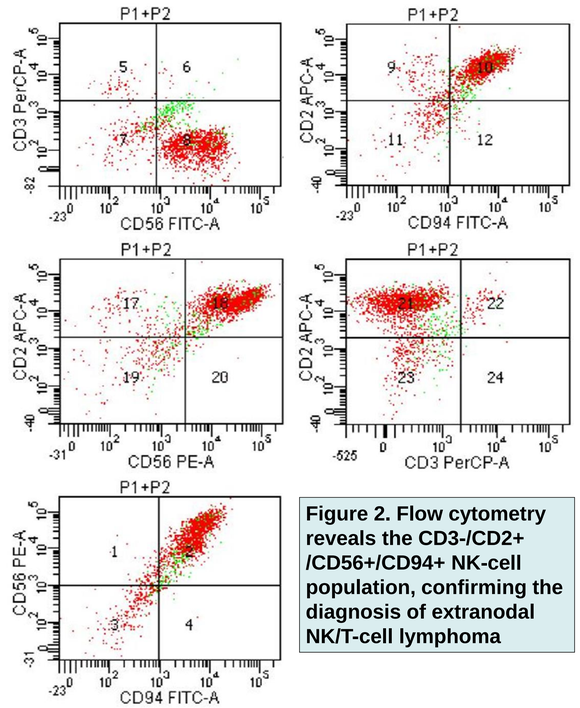

Figure 2. Flow cytometry reveals the CD3-/CD2+/CD56+/CD94+ NK-cell population, confirming the diagnosis of extranodal NK/T-cell lymphoma

Hospital Course

- Ophthalmology consultation diagnosed chronic pan-uveitis; treatment started.
- Wound biopsy revealed extranodal NK/T cell lymphoma. Patient was discharged with outpatient follow-up.
- Within a month of discharge, the patient was approved for charity care. He was readmitted for further staging work-up and initiation of chemotherapy. PET/CT showed no other metabolically active lesions. Brain MRI and lumbar puncture were negative. EBV PCR was positive.

Discussion

We present a rare case of extranodal NK/T cell lymphoma manifesting as vision loss and rash, initially presumed to be cellulitis. Physicians commonly encounter skin diseases, and this case highlights the importance of maintaining a broad differential diagnosis. This young, otherwise healthy patient with a new skin eruption was assumed to have cellulitis and an abscess. His B symptoms and vision changes were overlooked initially, and this resulted in a delay in diagnosis. Extranodal NK/T cell lymphoma is an aggressive cancer, and it is recommended that evaluation be carried out with a sense of urgency.

Conclusion

Extranodal NK/T cell lymphoma is an aggressive malignancy which should be on the differential of patients from Central or South America with new visual symptoms in the context of rash as it requires expedited biopsies and treatment.

References

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