Angiolymphoid Hyperplasia with Eosinophilia

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Patient Presentation

- F 55, presents with a 10-month history of:
  - Non-ulcerated, painless nodule (0.5 cm) on her lower lip
- No history of trauma or ear-nose-throat disease.
Differential Diagnosis

- Mucocele
- Lymphocytoma cutis
- Granuloma faciale
- Benign and malignant tumors of skin and adnexae
- Kimura disease
- Others
A well circumscribed dermal nodule composed of central angiomatous vascular proliferation with stromal and peripheral infiltrates of lymphocytes and eosinophils.

H&E: low power
Proliferation of small blood vessels, lined by enlarged endothelial cells (epithelioid in appearance) with uniform ovoid nuclei and intracytoplasmic vacuoles.
Prominent eosinophilic and lymphocytic infiltration
Lymphoid aggregate with follicle formation amongst the vascular proliferative cells.
**Immunostains**

- **CD 3** - Peripheral lymphocytes: Positive
- **CD 20** - Peripheral lymphocytes: Positive
- **CD31** - Vascular epitheliod endothelial cells: Positive
- **CK AE1/3** - Negative
- **S-100** - Negative
CD 31 stain highlights the endothelial cells demonstrating a strong angiogenesis component to the nodule.
Diagnosis

- Angiolymphoïd hyperplasia with eosinophilia (ALHE)
## Differential Diagnosis

<table>
<thead>
<tr>
<th>ALHE</th>
<th>Kimura Disease</th>
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</thead>
<tbody>
<tr>
<td>Primarily a localized hyperplasia</td>
<td>Systemic involvement:</td>
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<tr>
<td></td>
<td>• Lymphadenopathy</td>
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<td>• Blood eosinophilia</td>
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<td>• Nephrotic syndrome as a result of glomerular IgE deposition.</td>
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<td>Infrequent lymphadenopathy</td>
<td>Histological presentation of Kimura disease differs from ALHE in two factors.</td>
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<td>• Vascular proliferation &gt; inflammatory cells</td>
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<td></td>
<td>• Epithelioid endothelial cells lining blood vessels</td>
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<td>• Eosinophils present</td>
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<tr>
<td>Rare blood eosinophilia</td>
<td>• Vascular proliferation &lt; inflammatory cells</td>
</tr>
<tr>
<td>Histology:</td>
<td>• Blood vessels are lined by attenuated endothelial cells, not epithelioid endothelial cells</td>
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ALHE

- General presentation:
  - Range from asymptomatic to itchy or painful erythematous nodules, 2-3cm in diameter.
  - The nodules may pulsate or bleed.
Pre-auricular lesions of ALHE.
Hypotheses regarding ALHE’s origin:

- Reactive process to insect bites
- Hyperestrogen states
- Immunologic mechanisms
- Reactive vascular proliferation subsequent to inflammation associated with traumatized blood vessels

One study reported a history of trauma in only 9% of 116 patients with ALHE
ALHE

- Age: 20-50 years, M = F
- Locations affected by ALHE:
  - Head and neck:
    - Specifically the forehead, scalp, and skin around ears.
  - Trunk and genitalia
  - Three documented cases of ALHE affecting the lip.
Progression of ALHE:
- Most common course: ALHE remains stable
- Infrequent outcome: ALHE spontaneously regresses

Chronic nature of ALHE necessitates treatment.
- Recurrence rate ranges from 33-50%
Treatment

- **Medical:**
  - Isoretinoin
  - Corticosteroids
  - Interferon alfa-2b

- **Benefits:**
  - Improved cosmetic outcomes

- **Limitations:**
  - Relies on patient compliance
  - Not a permanent cure
Treatment

- **Surgical:**
  - Laser therapy
    - Carbon dioxide laser
    - Ultralong pulsed dye laser
    - Nd: YAG laser
  - **Benefits:**
    - Improved cosmetic outcome
  - **Limitations:**
    - Multiple treatments
    - Adversely affected by the depth of invasion or size of vessels
Treatment

- **Surgical:**
  - **Excisional**
    - Simple surgical excision
    - Moh’s surgery
  - **Benefits:**
    - Excision of the arterial and venous segments at the base decrease recurrence
  - **Limitations:**
    - Scarring
References

References continued