

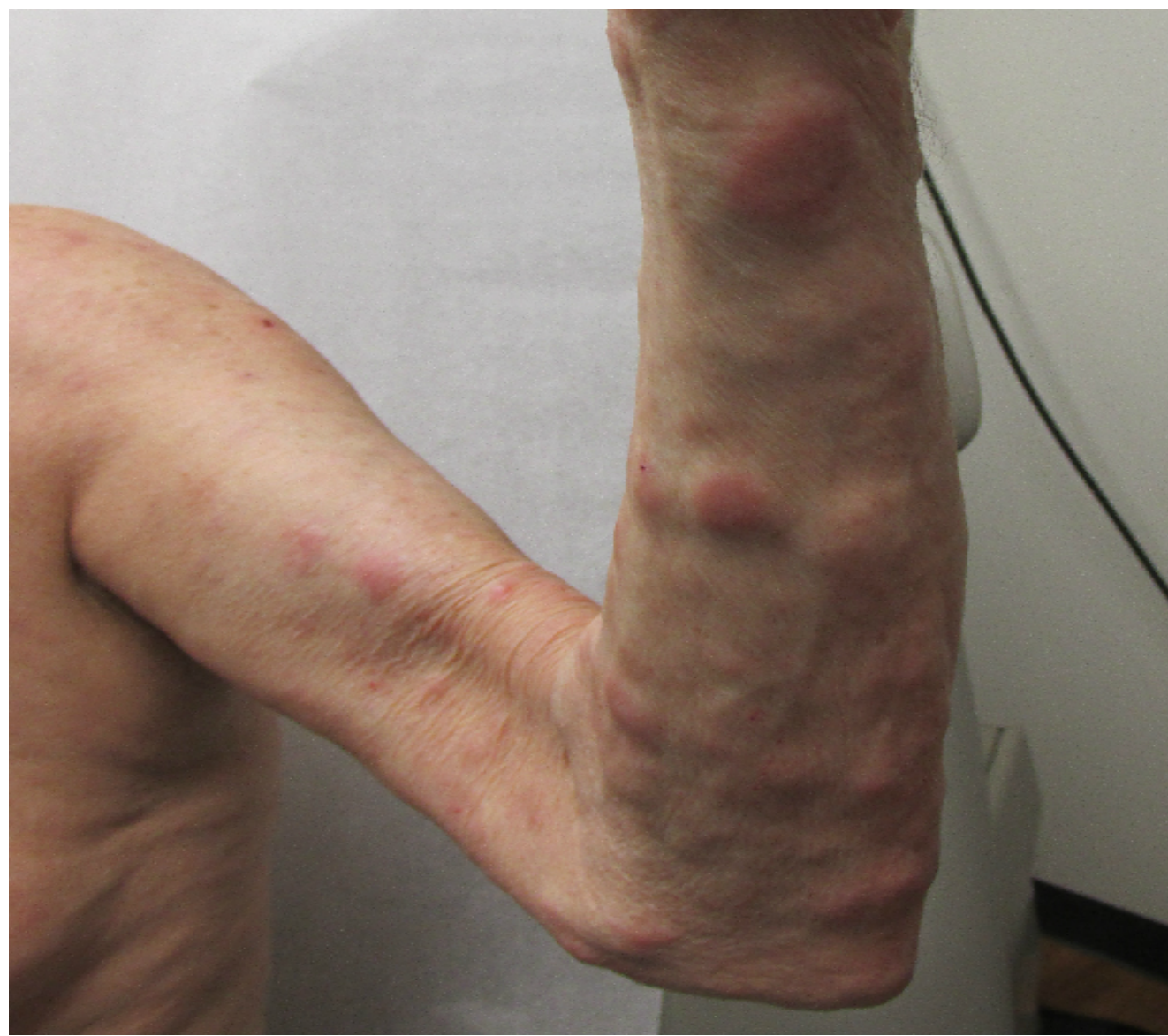
Case Presentation

- 71-year old male with past medical history of Evan's syndrome and hypertension presented for a second opinion regarding his skin lesions
- 2.5 years before presentation the patient exhibited a pruritic maculopapular eruption on his chest and abdomen that spread to his extremities
- Biopsies suggested pseudolymphoma and he was treated with topical steroids without improvement
- During this time, he was also treated for idiopathic vasculitis, for which he required surgical removal of his left toes and 3 of his right toes
- Daily medications included aspirin 81 mg, clopidogrel 75 mg, and telmisartan 40 mg
- At the time of presentation to our clinic, he complained of a non-pruritic eruption and fatigue, but no chills, fevers, or night sweats

Clinical Findings

Morphology:

Firm nodules throughout his body, sparing groin and buttocks. Enlarged lymph nodes were noted on bilateral axillae.



Clinical Course

Patients Labs:

- Hemoglobin - 9.6 mg/dl
- Platelets -128 mg/dl
- CMP unremarkable

Final Diagnosis

- Upon fine needle aspiration (FNA) of right supraclavicular lymph node, flow cytometry analysis revealed an aberrant T cell population positive for CD3, CD4, CD10, CD279, CD194, and TCR antibodies, with the T cell population comprising over 90% and the B cells accounting for less than 1%
- Lymph node excision demonstrated an atypical lymphocytic infiltrate in a vaguely nodular pattern with significant blood vessel proliferation.
- On skin biopsy, T-cells expressed follicular T-helper markers, CD10 and PD1, suggestive of follicular T-helper cell origin
- Concurrent peripheral blood flow cytometry and bone marrow analyses also identified an abnormal T cell population with follicular T helper cell phenotype
- There was no evidence of monoclonal B cell population
- The overall findings were consistent with AITL.

Histological Findings

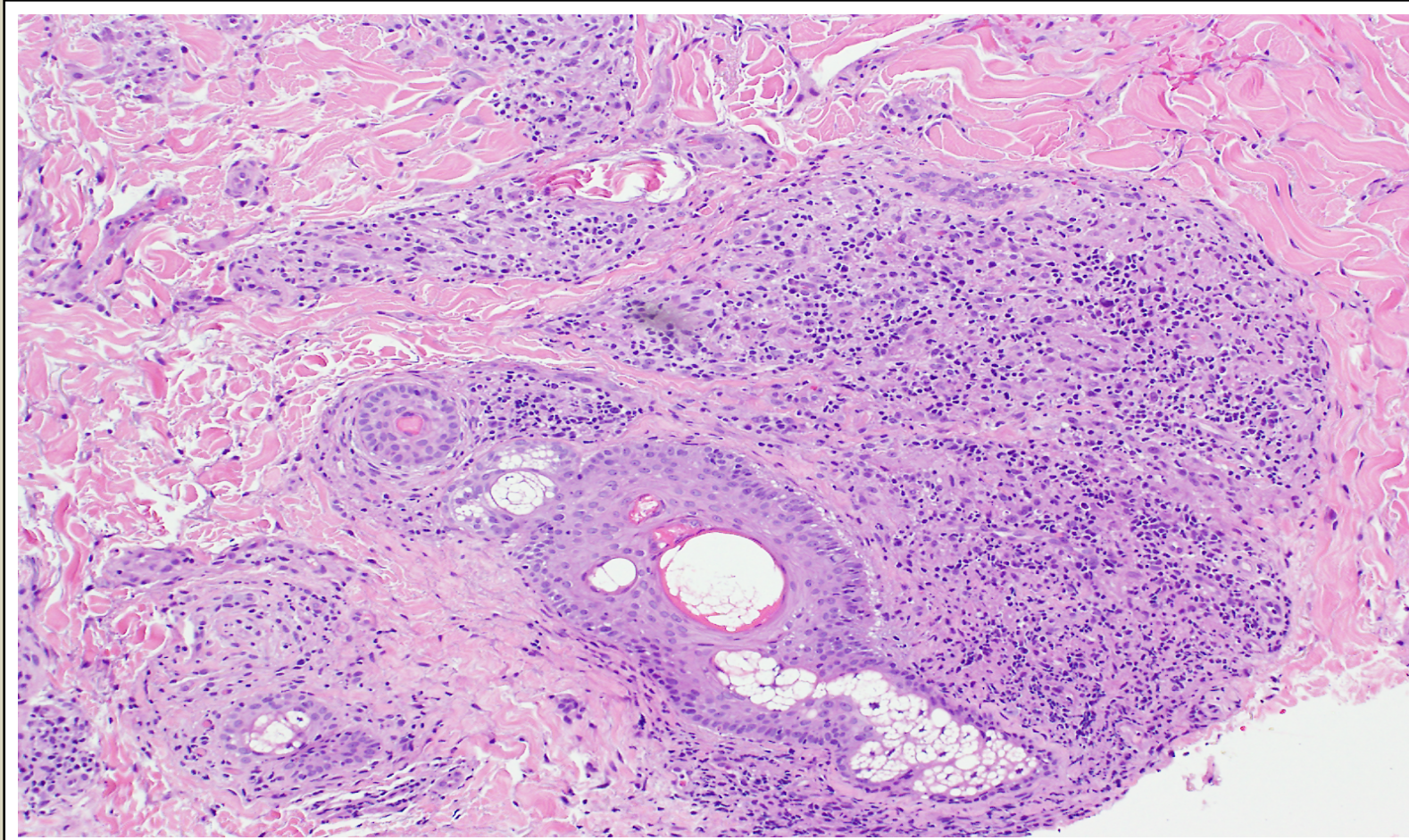


Figure 1

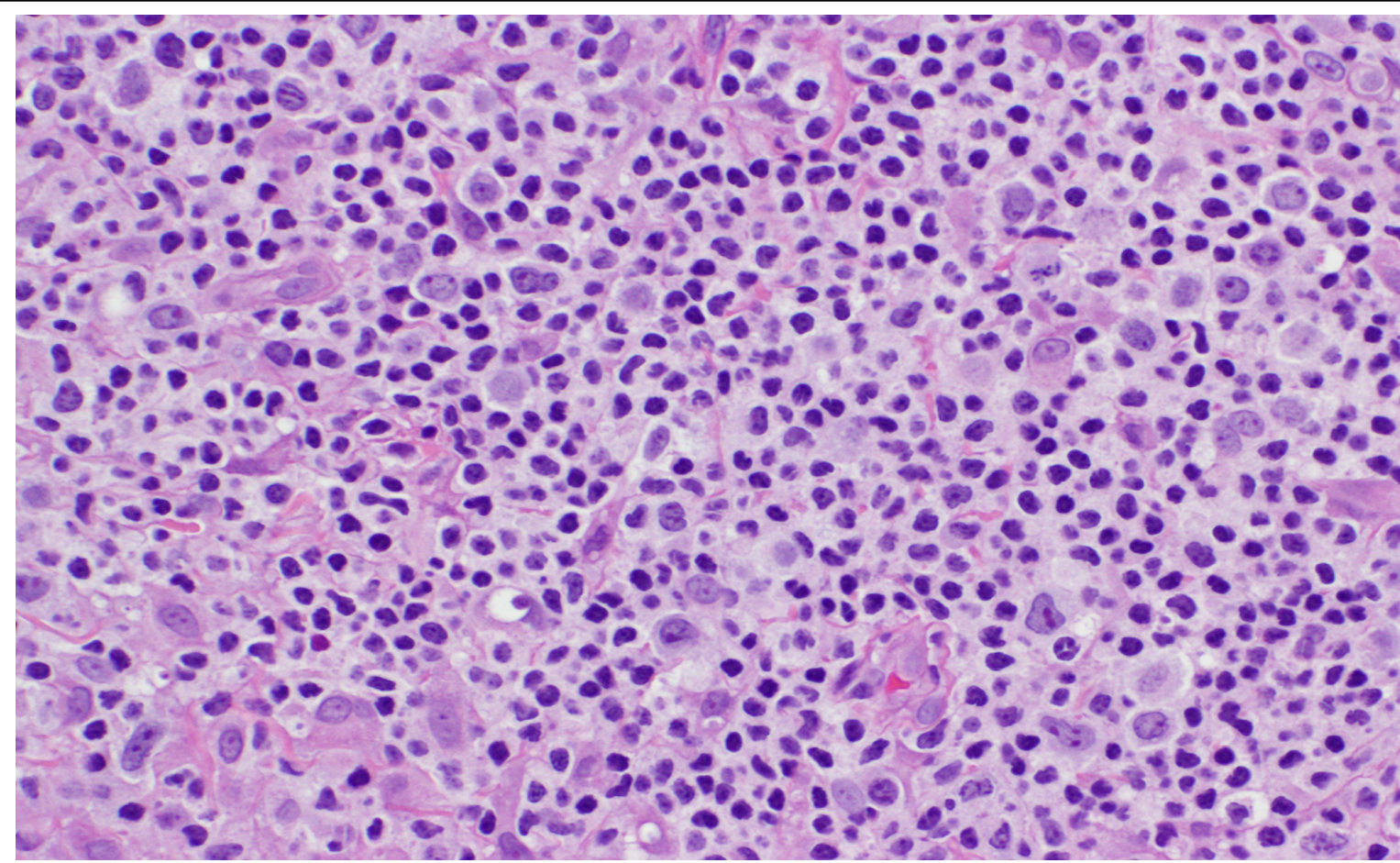


Figure 2

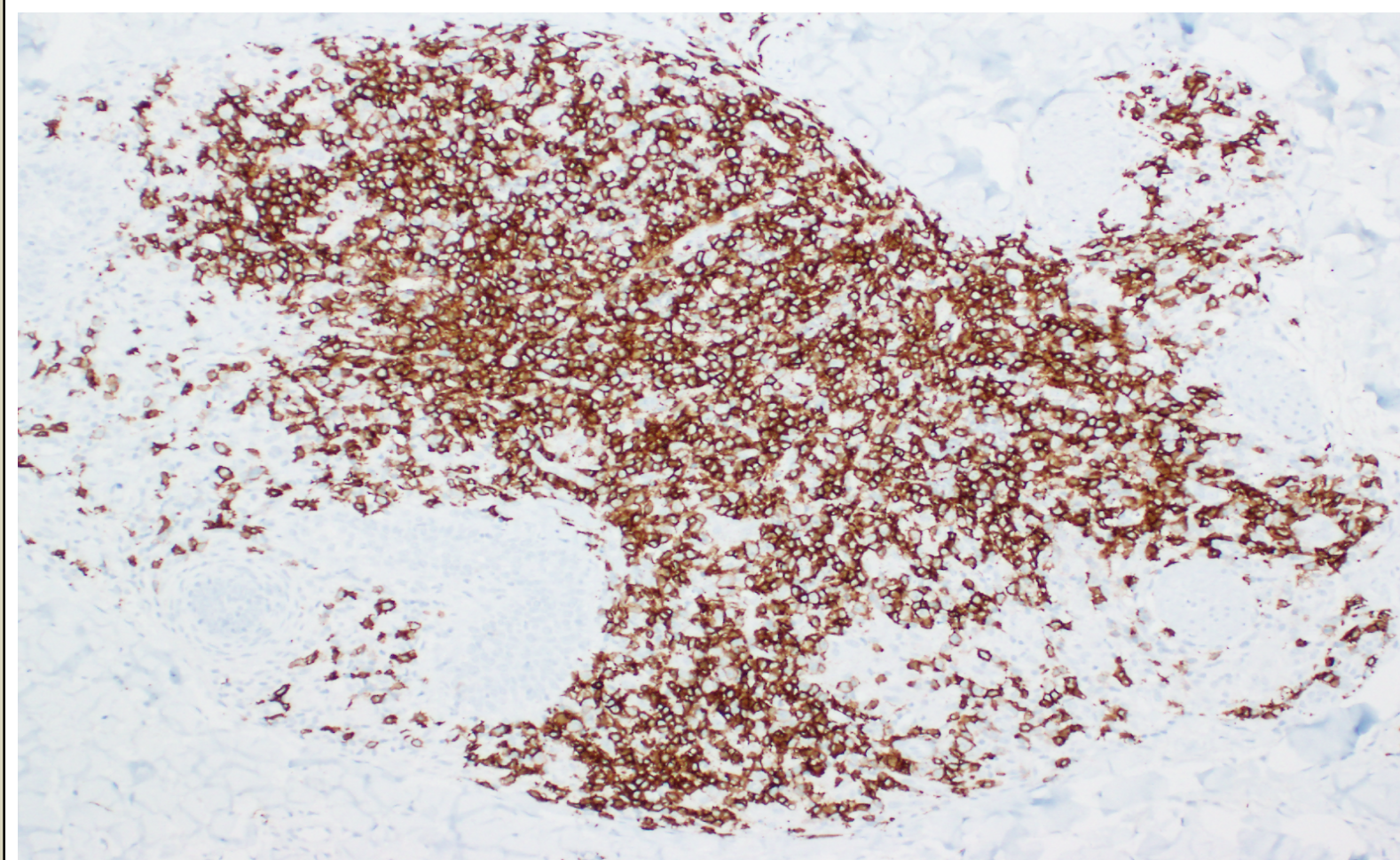


Figure 3

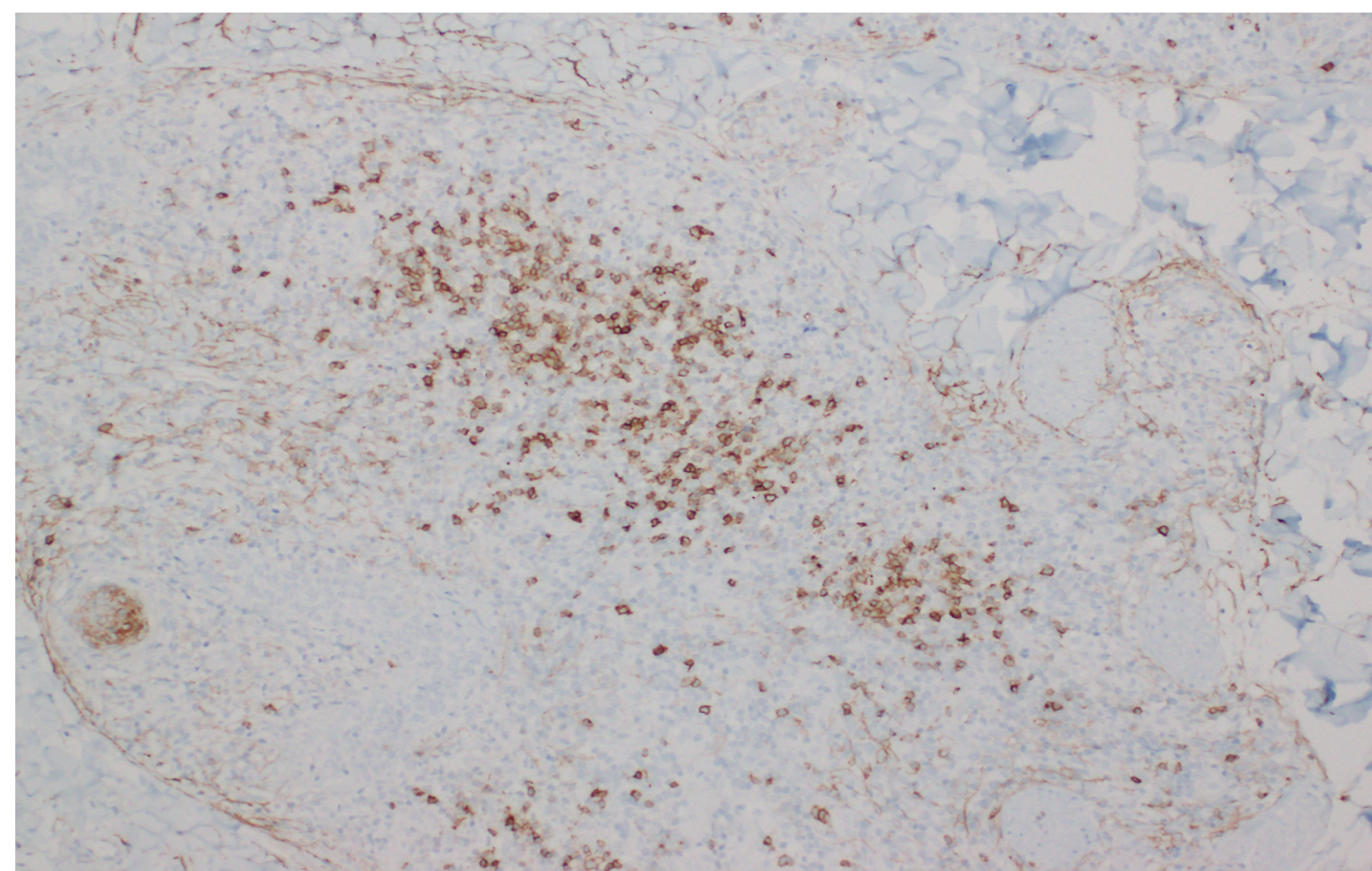


Figure 4

- Skin biopsies demonstrated a nodular proliferation of atypical lymphoid cells located at the superficial to deep dermis with perivascular and periadnexal infiltration (Figures 1-2)
- Stainings revealed the neoplastic cells to be T-cells (positive CD2, CD3, CD4, CD5, and dim CD7)
- These cells were mixed with CD20 positive B-cells (Figure 3), mostly large in size that stained positive for BCL-2 and MUM1, and negative for BCL-6
- Reactive CD8 positive small T-cells were noted to be present in the background
- A subset of T-cells was found positive for CD10 and dim PD1 (Figure 4), but negative for CXCL13
- Approximately 20% of the total cells were highlighted by CD30
- In-situ hybridization using kappa, lambda, and EBER probes did not yield any clonality

Clinical Findings

- Our case highlights the presentation of AITL with cutaneous lesions that displayed the TFH phenotype
- While AITL with cutaneous findings is a well-published entity, majority of cases are diagnosed via lymph node biopsy
- The nonspecific clinical and histologic findings of cutaneous AITL can create diagnostic dilemma
- There are no consistent specific skin manifestations of cutaneous AITL that have been characterized
- This case of AITL with cutaneous lesions positive for TFH marker adds to the body of literature regarding extra-nodal manifestations of AITL
- In particular, immunohistochemistry for TFH can aid in identifying the neoplastic cells in cutaneous lesions of this disease.
- Although AITL and the presence of TFH markers is generally studied via lymph node biopsy, it is important to remember that the disease often presents with prominent clinical skin findings that can be studied via skin biopsy

References

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