NC Society of Pathologists Digest

Society News

June 2024

Successful NCSP Annual Meeting –

Thanks to all that attended!

Our Trainees' Perspective

Awards, networking, and fun!

Sign up to be a Mentor!

Contact us at ncpath@ncmedsoc.org

The Annual Meeting was a Huge Success!

With over 60 attendees, this year's annual meeting was a great success! Drs. Parwani, Jeck and Hertel enlightened the audience on their digital pathology experience, and Drs. Wobker and Parwani provided a refresher on GU pathology. The trainees presented interesting and thoughtful posters, resulting in a tough competition. And, perhaps most importantly, the dinner, receptions and sponsors lounge provided plenty of opportunities to network and catch up with friends, old and new. We are looking forward to making next year's meeting in **Beaufort, NC on May 3, 2025** even better! Don't forget to mark your calendar.

Trainee Advisory Council's Report

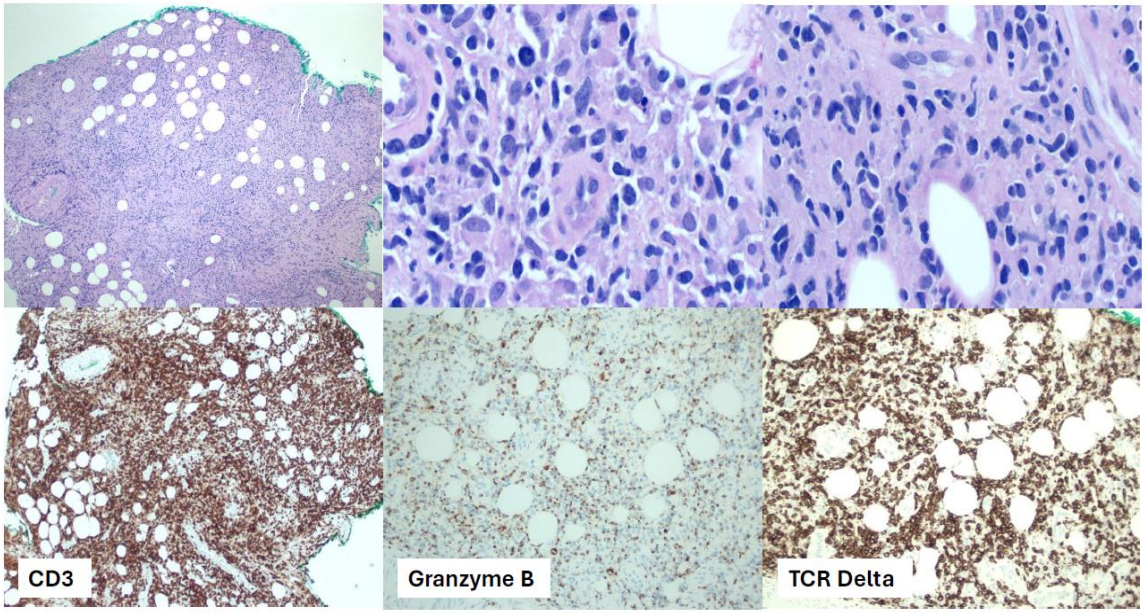
It's been an absolute pleasure serving as members of the new Trainee Advisory Council (TAC) of the NCSP this academic year! Our primary goal has been to enhance engagement of pathology trainees across the state with the NCSP, particularly increasing attendance at the annual meeting. Each of the pathology training programs was well-represented at this year's meeting, resulting in >300% increase in trainee engagement since last year! TAC leadership, **Meg Lee, MD,** and **Joseph Maniaci, MD,** spoke with the NCSP membership about the council's initiatives and progress thus far. UNC Pathology resident **Joseph Maniaci, MD,** won first place in the poster session (left), with Duke medical student **Raquel Perry, BS** (middle), and Duke Pathology resident **Bangchen Wang, MD, PhD** (right), coming in second and third places, respectively. In addition to learning and networking with peers across the state, trainees were able to connect with practicing pathologists in a variety of practice settings and *encourage participation in the new trainee mentorship program*. Overall, the NCSP annual meeting was an incredibly rewarding experience, and we are looking forward to reconvening next year!

Members of our Trainee Advisory Council (Left to Right): Daniel Masters, MD; Joseph Maniaci, MD (*Co-Chair*); Meg Lee, MD (*Chair*); Arooj Devi, MD; Catherine Alexander, MD; and Axin Yu, MD

NCSP Interesting Case Series

Case #3 by Catherine Alexander, MD

Clinical History: Adult presents with progressive B symptoms, rash and subcutaneous nodules on bilateral lower extremities. Undergoes a punch biopsy.



Histology and Ancillary Studies: Atypical lymphoid infiltrate involving the dermis and subQ. The cells are medium sized, hyperchromatic and pleomorphic, demonstrating elongated and irregular nuclei. The neoplastic cells are positive for CD3, CD2, CD56, TIA, Granzyme B, and TCR Delta. They lost CD5 and CD7 expression, and are negative for CD4, CD8, Beta F1, and EBV (EBER CISH). T-cell Clonality NGS study is positive.

Case Diagnosis: ***Primary cutaneous gamma-delta T-cell lymphoma***

Key Clinical and Pathology Findings:

- ***Rare skin and subcutaneous tissue tumor***, commonly involving the ***extremities,*** at ***median age of 65.***
- Patients frequently experience ***B symptoms.*** Lymph node or bone marrow involvement is uncommon.
- Localized or generalized ***patches, plaques, nodules, or tumors, often with ulceration.***
- ***Epidermal, dermal, or subcutaneous localization*** of neoplastic cells which can be associated with ***adipocytic rimming, prominent apoptosis, angiocentricity or angiodestruction.***
- Neoplastic cells are ***predominantly medium in size with elongated nuclei and coarse chromatin.***
- Characteristic immunophenotype: ***TCRγ+, TCRδ+, βF1−, CD2+, CD3+, CD4−, CD8−/+, CD56−/+*** with expression of at least one cytotoxic protein, including ***granzyme B, perforin, and/or TIA-1.*** There may be loss of some pan-T-cell markers.
- Molecular biology shows a ***monoclonal rearrangement of the TCR genes.***
- ***Poor prognosis*** in most cases. ***Hemophagocytic syndrome*** is a frequent complication.

High-Yield Relevant Information:

- Heterogeneous genomic landscape may be related to immune system function of cells of origin: ***VDδ1 expression and mucosal or superficial cutaneous compartments***, versus ***Vδ2 expression and subcutaneous compartments.***

Differential Diagnoses:

Subcutaneous panniculitis-like T-cell lymphoma	***Lupus erythematosus panniculitis***
Excellent prognosis with median age of ***~35 years.*** Involves only the ***subcutaneous fat.*** Atypical ***αβ (βF1+) CD8+*** cytotoxic T-cells with ***retention of pan-T-cell markers, negative for CD56.***	Usually ***young to middle aged adults. Inflammation in subcutis*** +/- dermis. ***Minimal lymphocyte atypia.*** Mixture of ***polyclonal CD4+ CD8+ T-cells*** in a background of ***mixed inflammation*** including B-cell nodules and plasma cells.