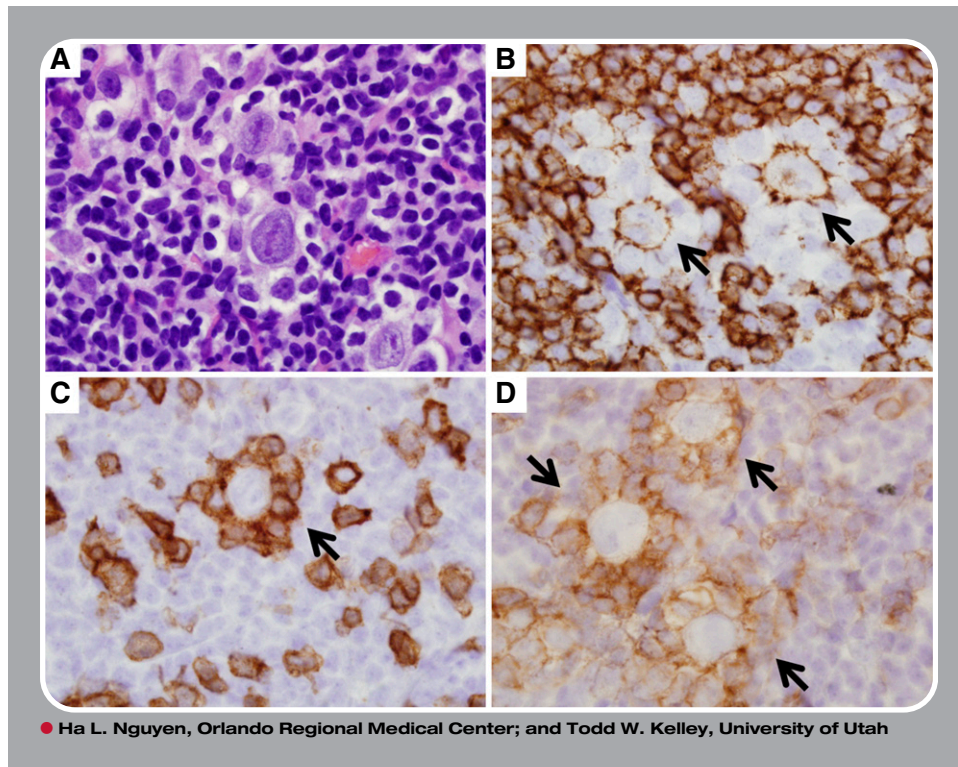


T-cell rosettes in nodular lymphocyte-predominant Hodgkin lymphoma



A 35-year-old man presented with axillary adenopathy. A biopsy was performed. Microscopic evaluation demonstrated a nodular lymphoid proliferation composed of scattered large atypical lymphoid cells in a background of small mature lymphocytes. Many of the atypical cells had multilobulated nuclei and others had large, rounded nuclei with multiple nucleoli. The large cells were very tightly ringed by smaller lymphocytes forming rosettes (panel A; original magnification $\times 1000$, hematoxylin and eosin stain). The large cells and the majority of small background lymphocytes were CD20 positive (arrows, panel B; original magnification $\times 1000$, CD20 immunostain). However, the small lymphocytes ringing the large cells were distinctly CD20 negative (panel B). These lymphocytes expressed CD3 (arrow, panel C; original magnification $\times 1000$, CD3 immunostain), programmed cell death protein-1 (arrows, panel D; original magnification $\times 1000$, PD-1 immunostain), and CD57, consistent with follicular helper T (T_{FH}) cells. Additional studies showed that the tumor cells expressed PAX5 and BCL6 but were negative for CD30, CD15, and Epstein-Barr virus. A diagnosis of nodular lymphocyte-predominant Hodgkin lymphoma (NLPHL) was made.

A characteristic finding in NLPHL is T_{FH} cells tightly ringing tumor cells. T_{FH} cells are speculated to have a prosurvival effect in this context, perhaps analogous to their role in the normal follicle center where they promote survival of positively selected B cells. This feature highlights the immunologic interplay in the microenvironment.



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