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Florid reactive follicular hyperplasia with exuberant HHV8 infection

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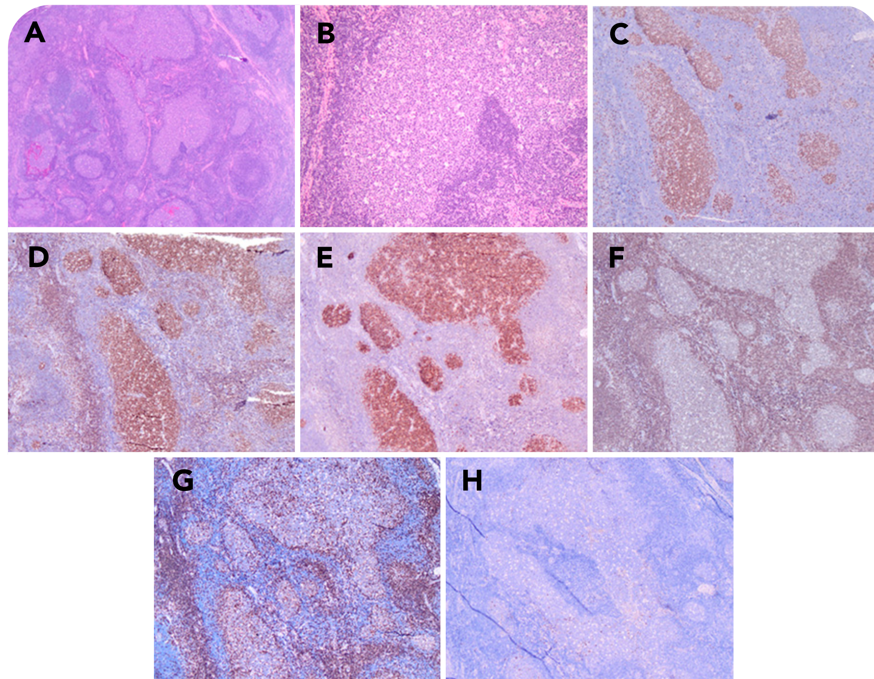

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A 26-year-old HIV⁻ man with no past medical history presented with isolated enlarged (the largest was 3.7 cm) nontender lymph nodes (LNs) in the submandibular/cervical region. Hematoxylin-eosin staining of the excised left neck LNs shows the nodal architecture is preserved but replaced by florid secondary follicular hyperplasia (panel A; original magnification ×20) with focal progressive transformation of the germinal center (GC) (panel B; original magnification ×100). Latency-associated nuclear antigen (LANA) shows diffuse immunoreactivity for human herpesvirus 8 (HHV8) (panel C; original magnification ×40) among the secondary GC B cells, which are positive for BCL6 (panel D; original magnification ×40), CD10 (panel E; original magnification ×40) but negative for BCL2 (panel F; original magnification ×40) compared with CD3 (panel G; original magnification ×40). There are rare mature polytypic plasma cells (PCs) as shown by CD138 (panel H; original magnification ×40), κ and λ (not shown). No cells are positive for Epstein-Barr virus (EBV) by EBV-encoded small RNAs (EBER). Flow cytometry reveals no monotypic B or aberrant T cells. Karyotyping shows 46,XY[20]. There are no monoclonal rearrangements of immunoglobulins H and K. The overall features are a florid reactive follicular hyperplasia with exuberant infection of HHV8 exclusively confined to the secondary GC B cells. The patient has remained asymptomatic and healthy for 18 months since the initial diagnosis.

This unique case has demonstrated that HHV8 can infect normal secondary GC B cells and that not all HHV8-infected LNs are malignant. HHV8^{+} germinotropic lymphoproliferative disorder and HHV8-associated multicentric Castleman disease have been ruled out, as the former is typically positive for EBV, and the latter always shows λ-restricted PCs.

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