



Hemepath Case 29: 13-Year-Old Male

HISTORY

A 13-year-old male presents with a 1-month history of right-sided cervical lymphadenopathy, as well as test results suggestive of hepatitis. The node is aspirated, and "Hodgkin-like cells" are identified. The node is subsequently excised.

CBC

Hgb (g/L)	N
MCV	N
WBC	High
Plt	N

DESCRIPTION OF SLIDE

Lymph Node Biopsy

Paracortical expansion is evident in this biopsy. There are numerous large and atypical lymphoid cells (see circles) in the paracortex, some of which have vesicular chromatin and prominent nucleoli. These are known as immunoblasts, and may resemble Hodgkin cells. However, this patient does not have Hodgkin's lymphoma, as classic Reed-Sternberg cells and other Hodgkin cells are not identified; as well, eosinophilia is absent from this node, and special stains for CD15 and CD30 are both negative (not shown).

*** To see the slide annotations in Imagescope, click on VIEW, then ANNOTATIONS, and then on the "eye" icon adjacent to the word "Layers". In the "Layer Attributes" box, a brief description of the annotations is provided. You may also click on individual layer region (e.g. region 1) in the "Layer Regions" box to locate each annotation – this is especially helpful in identifying annotations when the slide is not zoomed in. ***

MORPHOLOGICAL DIAGNOSIS

EBV lymphadenitis

DISCUSSION

Infectious mononucleosis is an illness caused by Epstein-Barr virus (EBV) and most commonly affects adolescents and young adults, classically presenting with a triad of fever, pharyngitis, and lymphadenopathy. The lymphadenopathy may precede or follow the pharyngitis, or may be seen alone.

EBV infects B-lymphocytes and subsequently activates and promotes proliferation of T-lymphocytes, namely CD8+ cytotoxic T-cells and natural killer cells. EBV-infected

lymphocytes can appear abnormal and may resemble Hodgkin cells due to their prominent nucleoli. Other hematological abnormalities, such as autoimmune hemolytic anemia and thrombocytopenia, may also be seen in EBV mononucleosis.