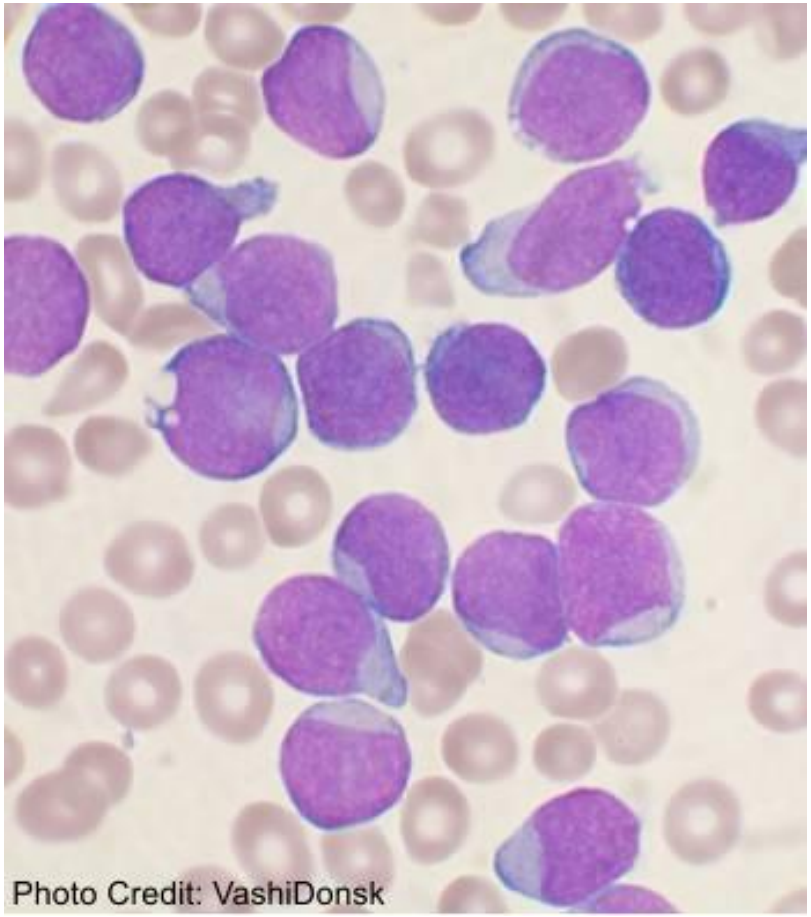
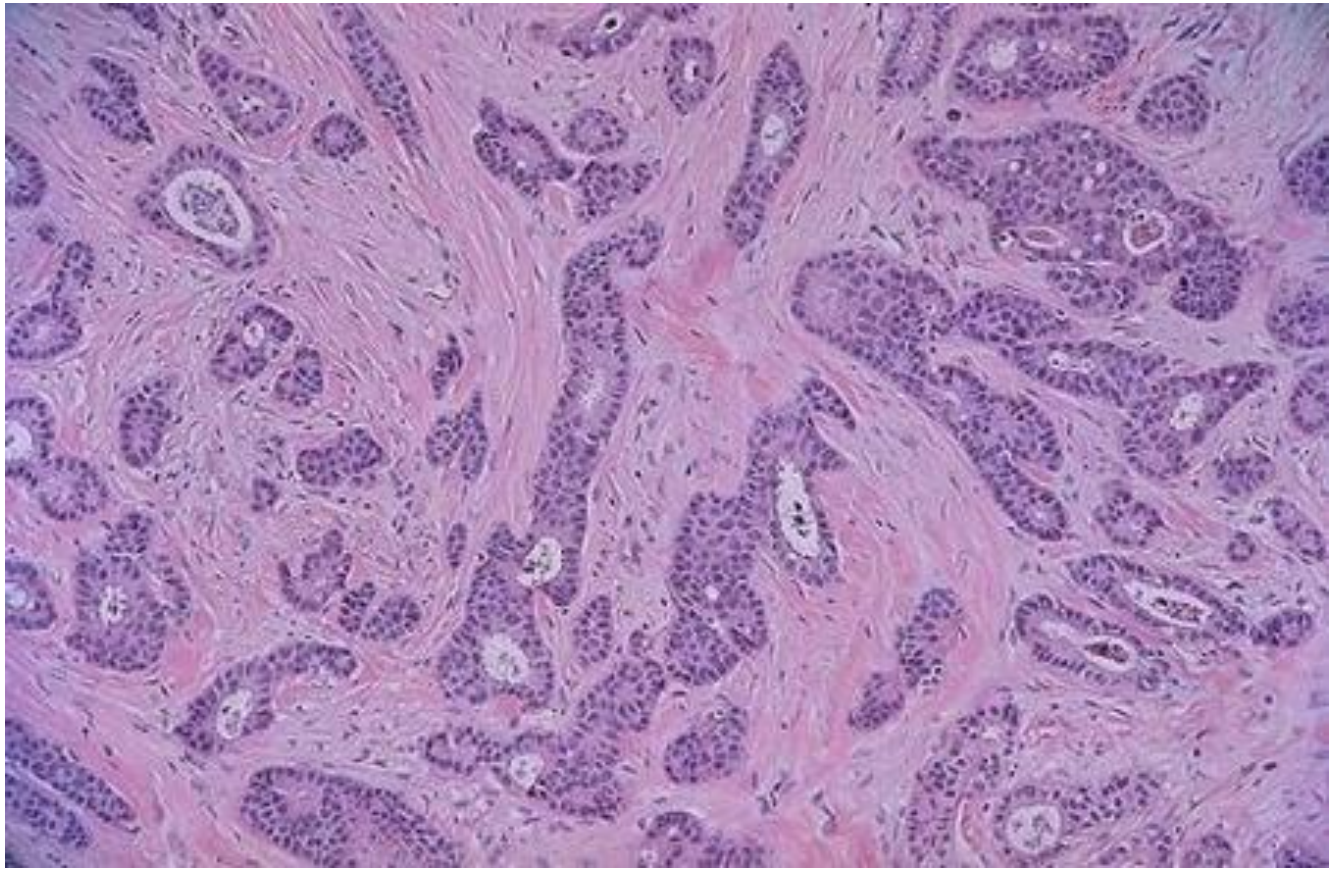
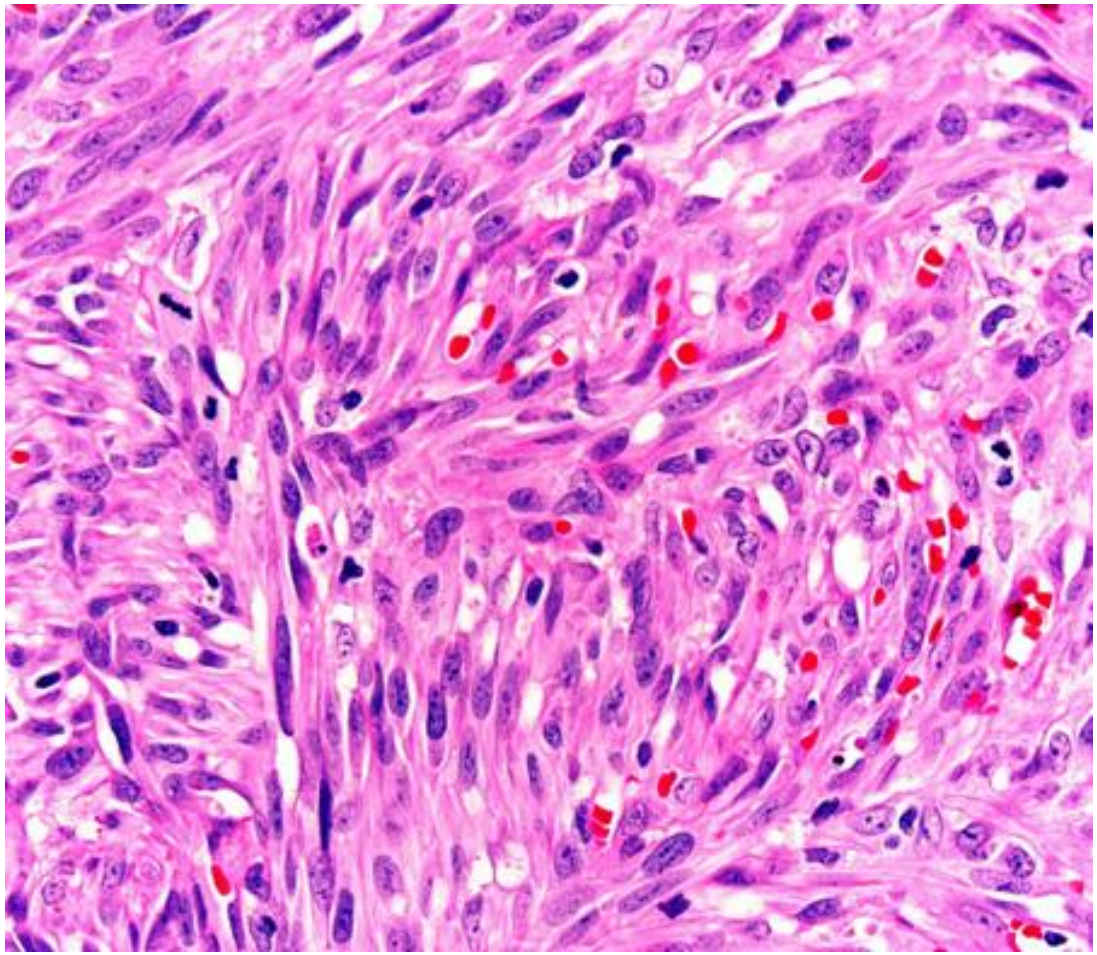


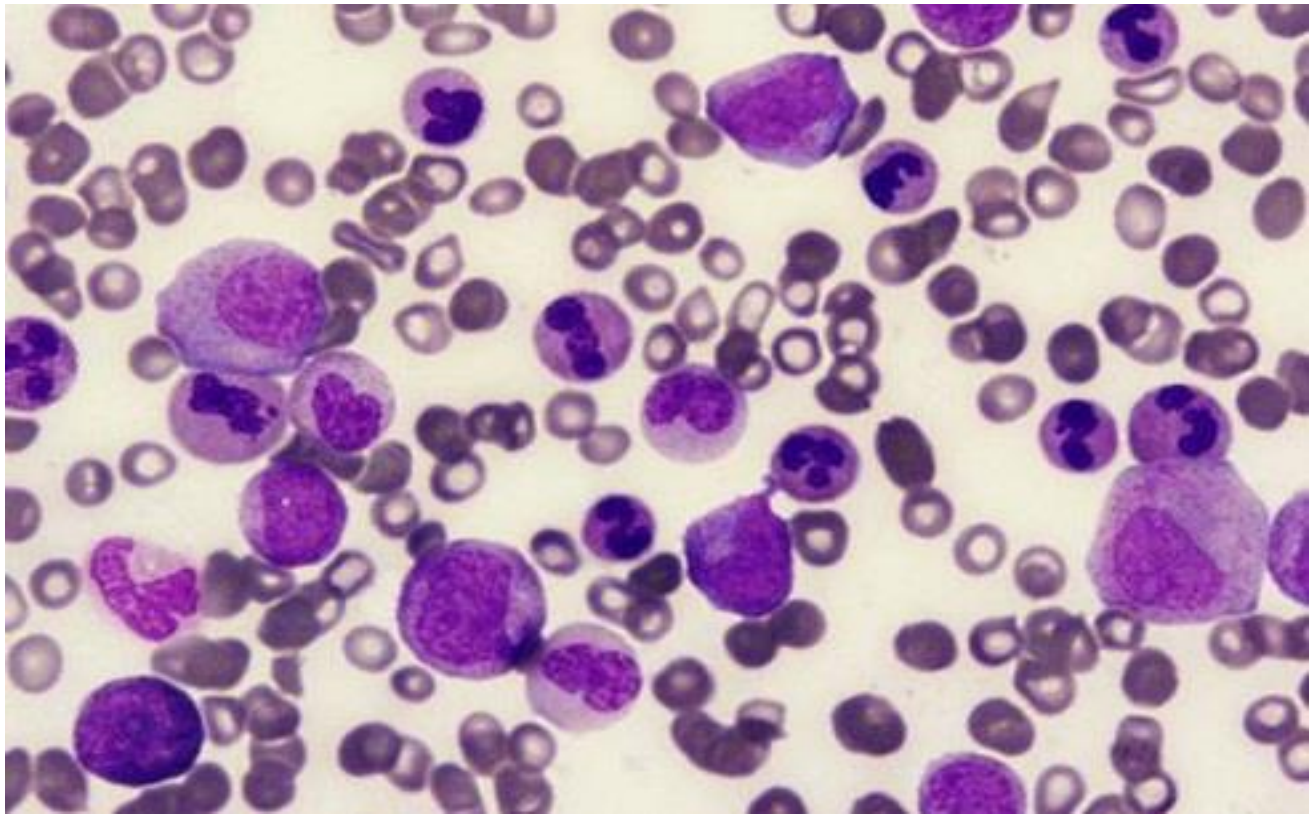
Peripheral blood smear.
Among red blood cells (nuclei-free small cells) there are many big cells with little cytoplasm and the nucleus occupying almost the whole cell: LEUKEMIA.
Since it is not possible to observe mature white blood cells such as neutrophils we can argue it is an ACUTE LEUKEMIA.



In the picture we can observe a completelety desorganised tissue that lost all it architectural features.
The stroma (connective tissue) is stained in pink by esosin while cell nuclei are stained in blue-violet by hematoxylin. The tissue is made of simil-glandular structures with irregular morphology and little or no lumen.
Nuclei are many and cells lost their polarity. At this low magnification it's not possible to appreciate nuclear atypias.
We can argue it is an ADENOCARCINOMA but we can't identify the tissue of origin.



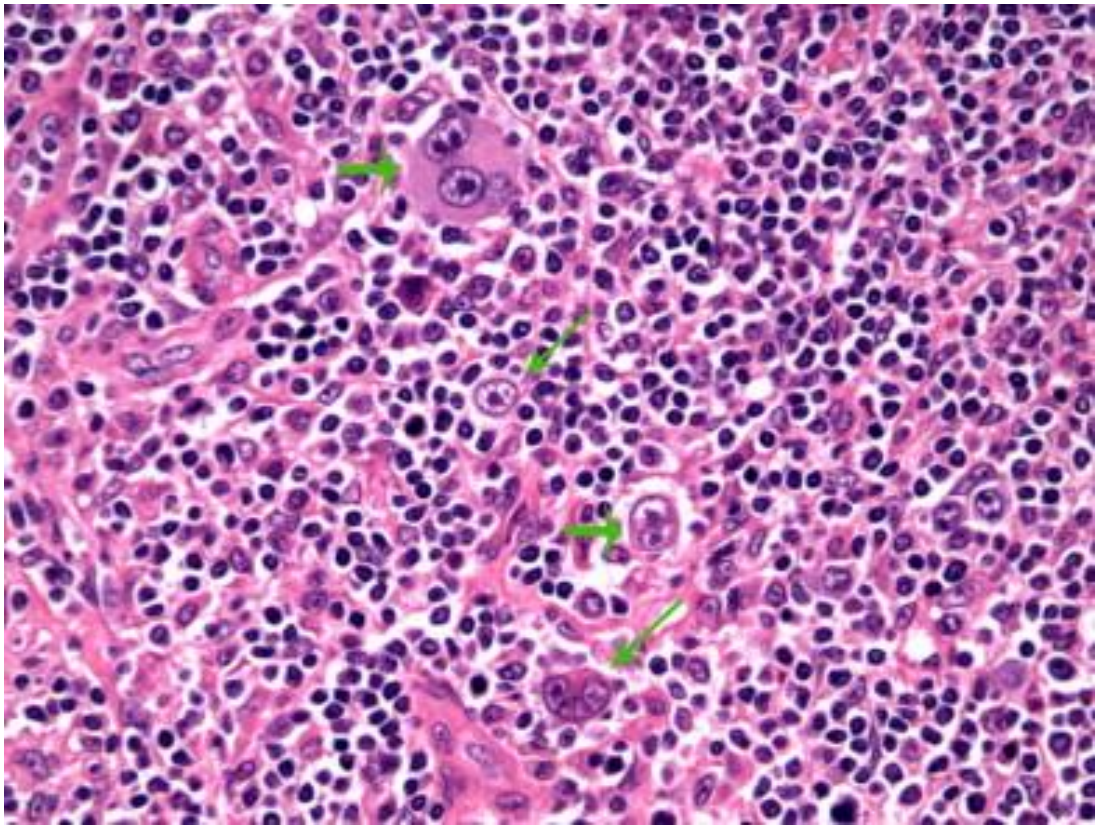
In this picture we can observe a tissue with no evident architectural organisation. The cells are characterised by big nuclei with evident nucleoli and mitotic figures; the cytoplasm is not that abundant but an intense cytoplasmic staining is present. Cells have elongated nuclei and several red blood cells are evident.
Given these features we can argue it is a SARCOMA.



Peripheral blood smear

Among red blood cells (nuclei-free small cells) there are many big cells with big nuclei: LEUKEMIA.

Also, mature white neutrophils and an eosinophil are present, therefore we can argue it is a CHRONIC LEUKEMIA.



In this slide we can observe many cells with appearance similar to lymphocytes (small round cells with nuclei occupying almost all cell volume). The tissue is homogeneous and the degree of nuclear an cellular pleomorphism is low. These features suggest that this tumour is a lymphoma.

Moreover, the presence of a particular kind of cell, exclusive of HODGKIN LYMPHOMA (that is Reed-Sternberg cells, giant cells with generally two big nuclei showing nucleoli that give them the appearance of a owl-eye) allows to properly identify this tumour.