

TUMORS OF BLOOD VESSELS

○ Tumors of blood vessels and lymphatics include:

- benign tumors (*common) → hemangioma

☐ - borderline (locally aggressive) → kaposi sarcoma

- malignant (rare, mets) → angiosarcoma

○ Benign : contain vascular channels lined by normal-appearing endothelial cells. ☐

○ Malignant: more cellular, cytologic atypia, proliferative, do not form well-organized vessels ☐

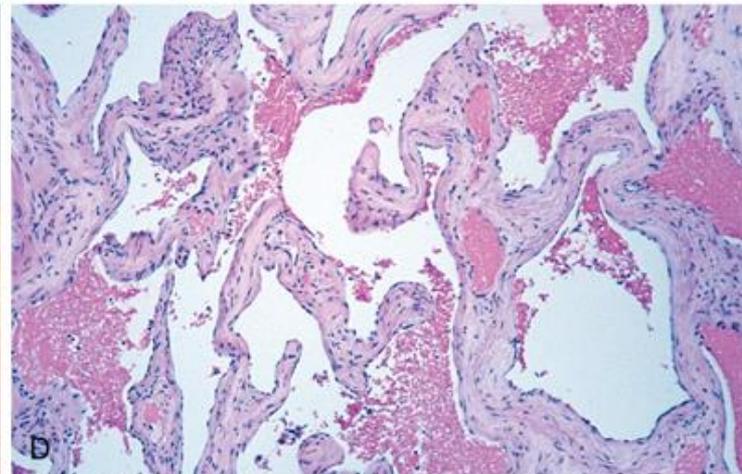
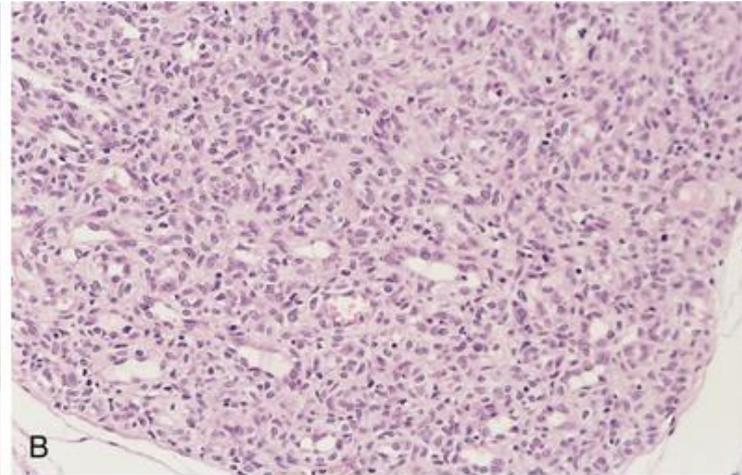


HEMANGIOMA

- common tumors composed of blood-filled vessels.
- m/c infancy and childhood
- Most are present from birth
- many regress spontaneously 
- m/c head and neck
- Possible internal organs (1/3 → liver)
- Malignant transformation rare



HEMANGIOMA



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HISTOLOGIC AND CLINICAL VARIANTS:

1- *Capillary hemangiomas* :

- most common type
- skin and mucous membranes of oral cavity & lips

2- *Juvenile hemangiomas* (strawberry hemangiomas) of newborn

3- *Pyogenic granulomas*: rapidly growing pedunculated lesions on gingival mucosa (? history of trauma)

4- *Cavernous hemangiomas* : large, dilated vascular channels; deep organs, do not spontaneously regress

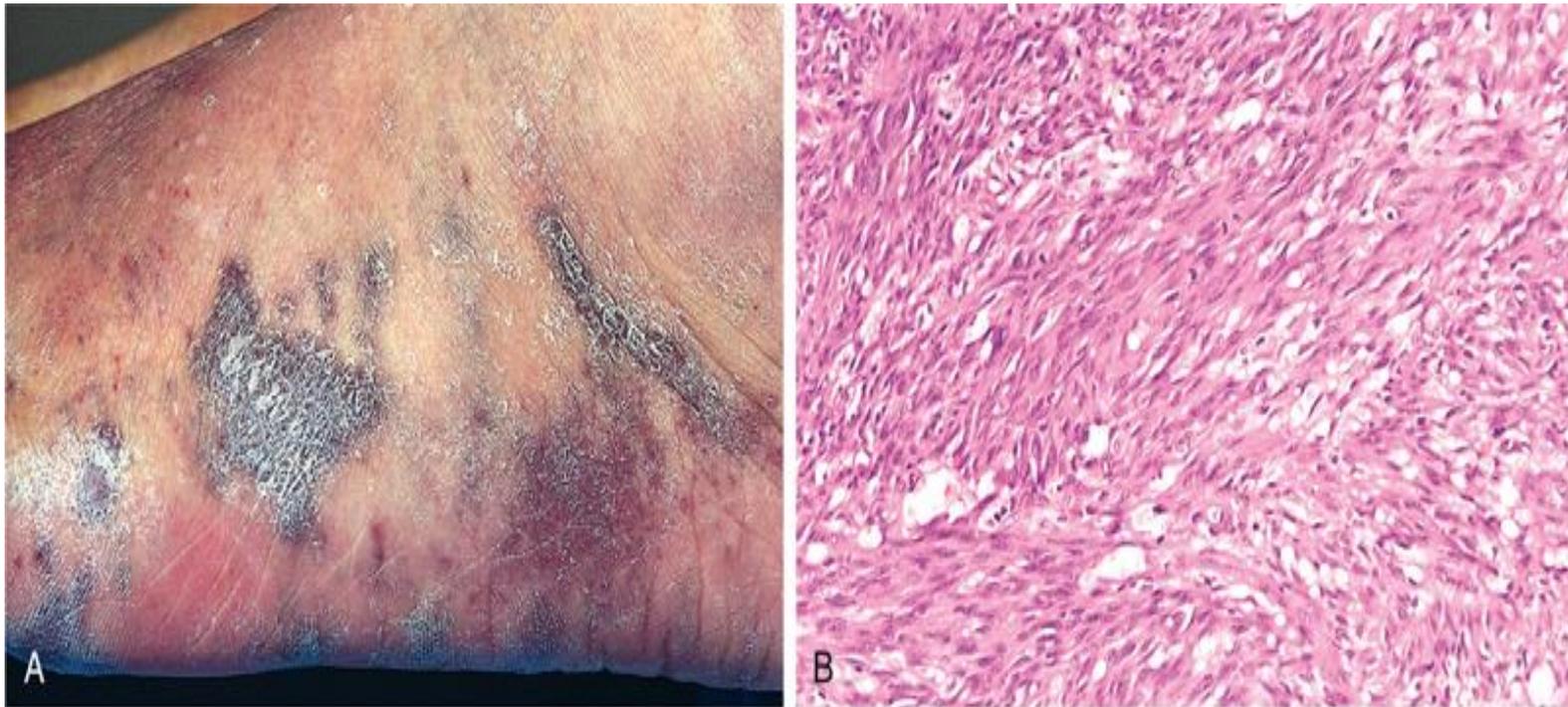


INTERMEDIATE-GRADE (BORDERLINE) TUMORS

- *Kaposi Sarcoma (KS)*
- a vascular neoplasm caused by human herpesvirus- 8 = **HHV-8**
- *most common in patients with AIDS* 🗨
- used as a criterion for diagnosis of AIDS
- *the most common HIV-related malignancy*



Multiple red-purple skin plaques or nodules, usually on the distal lower extremities; progressively increase in size and number and spread proximally



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MALIGNANT TUMORS

- Angiosarcoma : 
- lesions can occur at any site, but most often involve the skin, soft tissue, breast, and liver. 
- Pathogenesis= ? Carcinogens; ?unknown
- A latent period between exposure and tumor development



RISK FACTORS OF ANGIOSARCOMA

- **Chemical carcinogens** → liver angiosarcoma 
- **Irradiation**
- **Lymphedema** → ipsilateral upper extremity several years after radical mastectomy (i.e., with lymph node resection) for breast cancer
- **foreign bodies** → long-term (years)



CARDIAC TUMORS

- Very rare
- Metastatic Neoplasms *are the most common malignancy of heart* (5% of patients dying of cancer). (lung cancer → most common source)
- Angiosarcomas → most common primary malignant tumor of heart.
- Benign tumors are also very rare but important for their critical location



CLINICAL FEATURES AND SIGNIFICANCE

- 1- "ball-valve" obstruction 
 - 2- Embolization
 - 3- fever and malaise → tumor elaboration of **interleukin-6**
- **Diagnosis:** Echocardiography
 - **Treatment:** surgical resection in benign tumors.

