



CVS TUMORS

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Vascular Tumors

benign tumors

Contain vascular channels
Lined by normal-appearing endothelial cells

most common
No metastasis
Benign behavior

e.g. hemangioma

Borderline tumors

intermediate between benign and malignant behavior

Rare
No metastasis
Locally aggressive

e.g. kaposi sarcoma

Malignant tumors

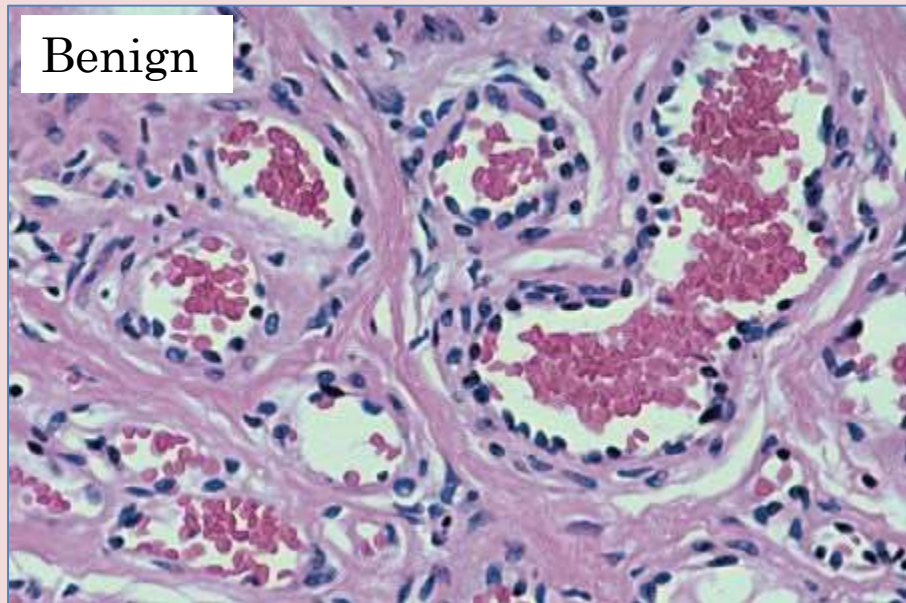
More cellular
Cytologic atypia
Proliferative
Do not form well-organized vessels

rare
metastasis

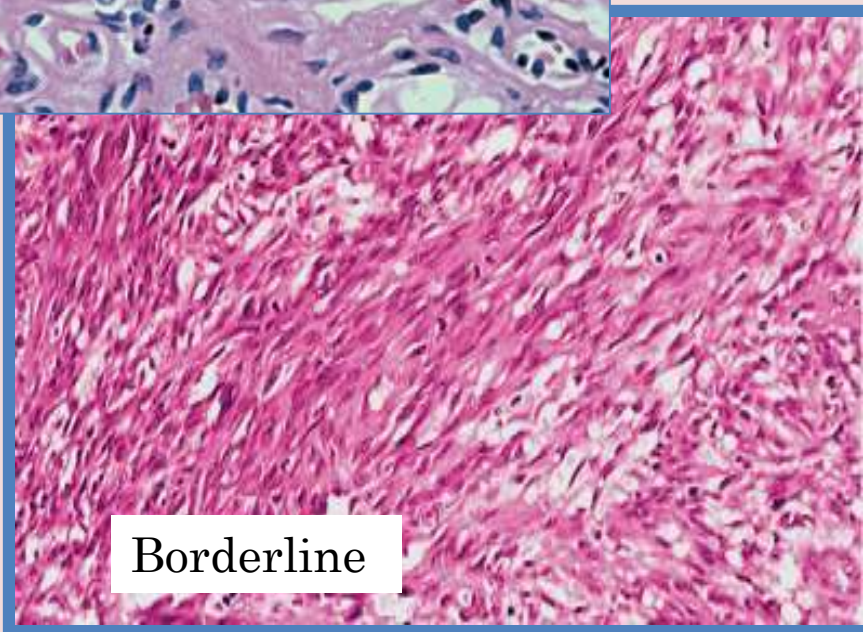
e.g. angiosarcoma



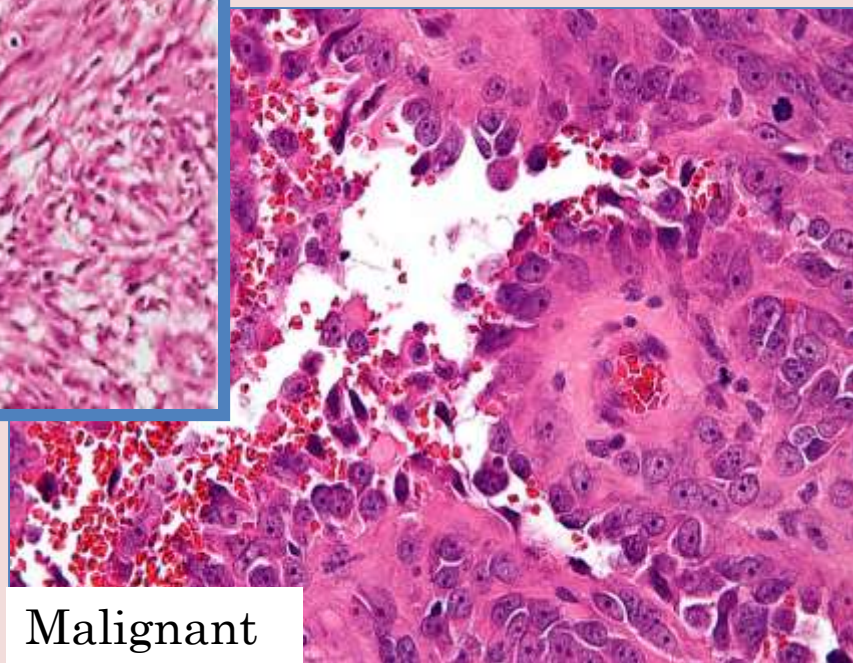
Benign



Borderline



Malignant



NOMENCLATURE

- Hem-angi-oma
- Lymph-angi-oma
- Angiosarcoma



HEMANGIOMA

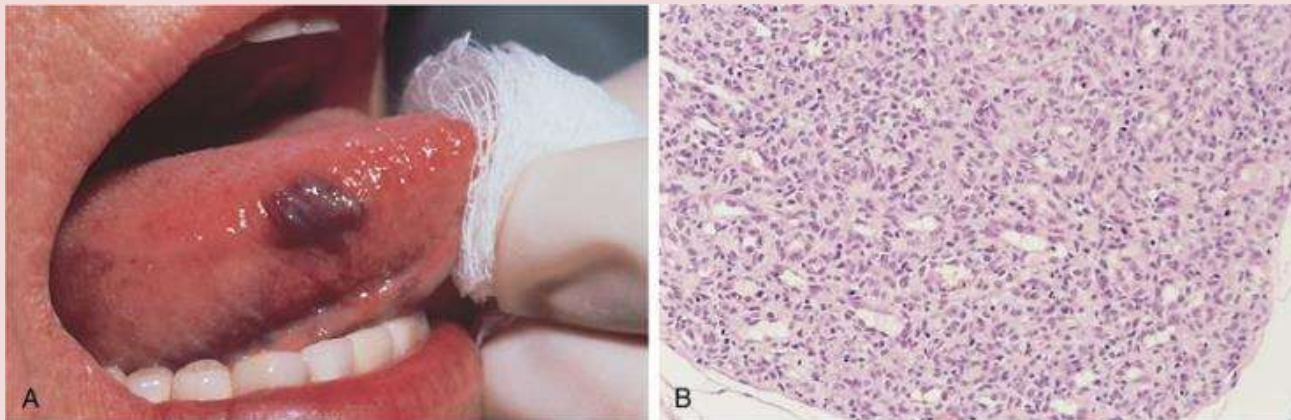
- common
- composed of blood-filled vessels.
- m/c age: infancy & childhood
- Most are present from birth
- many regress spontaneously (↓ size)
- m/c location: head and neck
- Some in internal organs (1/3 → liver)
- Malignant transformation: very rare



HISTOLOGIC AND CLINICAL VARIANTS:

1- Capillary hemangiomas :

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



HISTOLOGIC AND CLINICAL VARIANTS:

2- strawberry hemangiomas of newborn (juvenile hemangioma):

- m/c head & neck
- Usually regress with time



HISTOLOGIC AND CLINICAL VARIANTS:

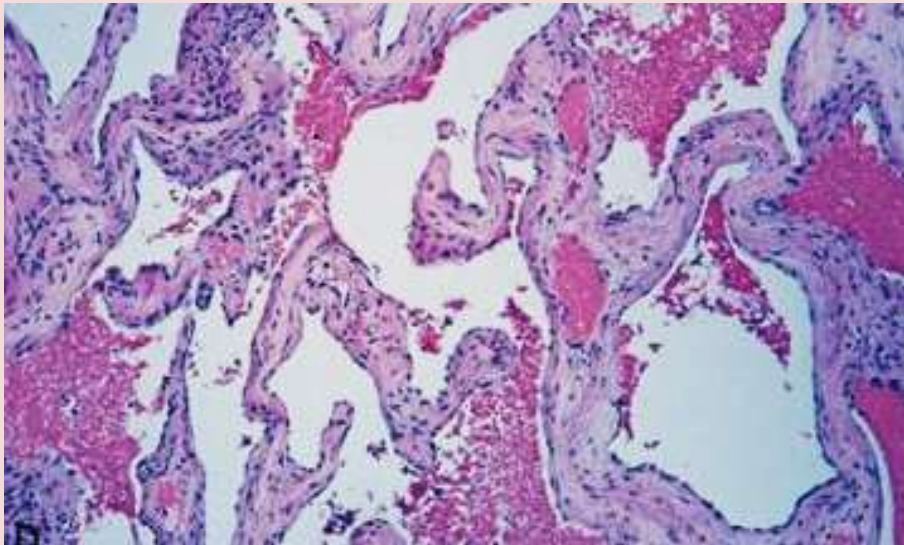
3- *Pyogenic granulomas*:

- rapidly growing pedunculated lesions on gingival mucosa
- 1/3 history of trauma



HISTOLOGIC AND CLINICAL VARIANTS:

- 4- *Cavernous hemangiomas* :
- large, dilated vascular channels
 - deep organs (liver most common)
 - do not spontaneously regress

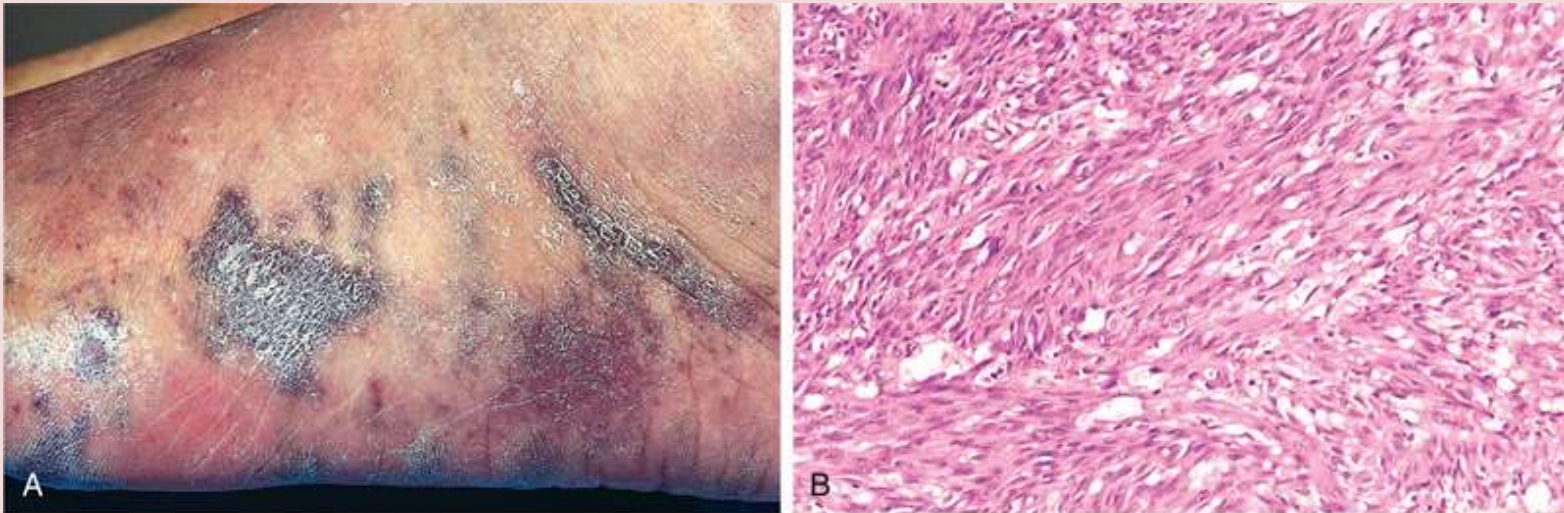


INTERMEDIATE-GRADE (BORDERLINE) TUMORS

- *Kaposi Sarcoma (KS)*
- a vascular neoplasm caused by human herpesvirus- 8 = **HHV-8**
- *Several types: classic; endemic; Transplantation-associated; and AIDS-associated;*
- **AIDS-associated (epidemic) KS is an AIDS-defining illness (used as a criterion for diagnosis of AIDS)**
- *the most common HIV-related malignancy*



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

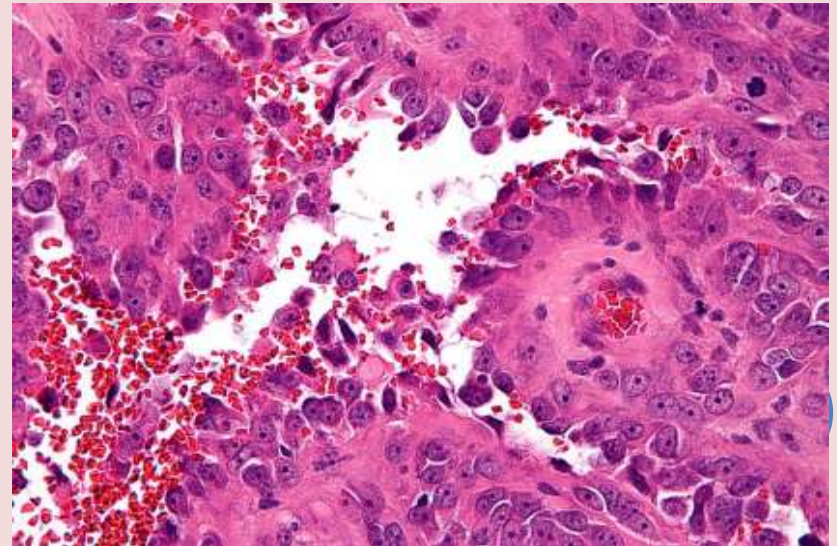


Kumar et al: Robbins Basic Pathology, 9e.
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MALIGNANT TUMORS

- 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**

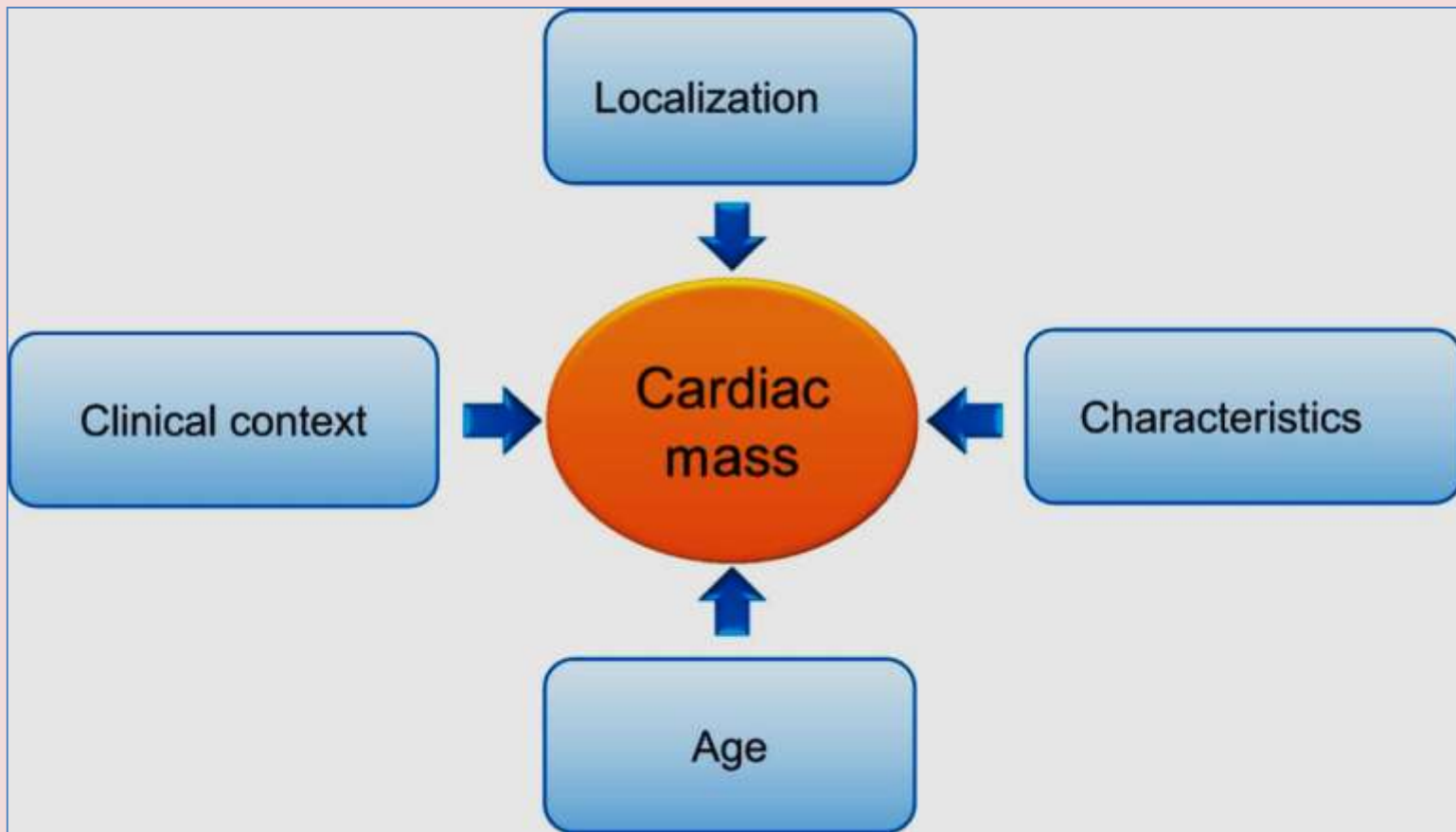
- **Lymphedema** →

 - e.g. ipsilateral upper extremity several years after radical mastectomy with lymph node resection for breast cancer

- **foreign bodies** → long-term (years)



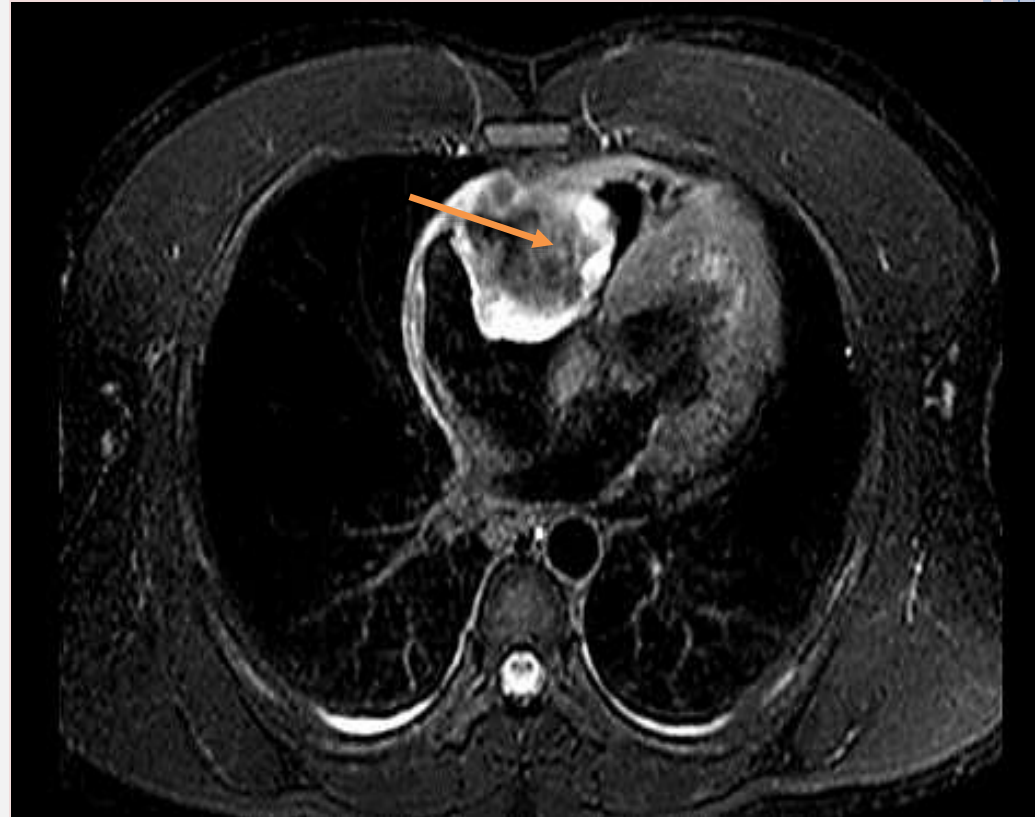
CARDIAC TUMORS



CARDIAC TUMORS

- Very rare
- Metastatic Neoplasms are the most common malignancy of heart (5% of patients dying of cancer).
- most common source → lung cancer

- Angiosarcomas → most common primary malignant tumor of heart.
- Benign tumors are also very rare but important for their critical location



CARDIAC MAGNETIC RESONANCE IMAGING (CMRI)

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.

