

# Concepts of Neoplasia

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Neoplasm- refers to new  
growth

# Neoplasms may be:

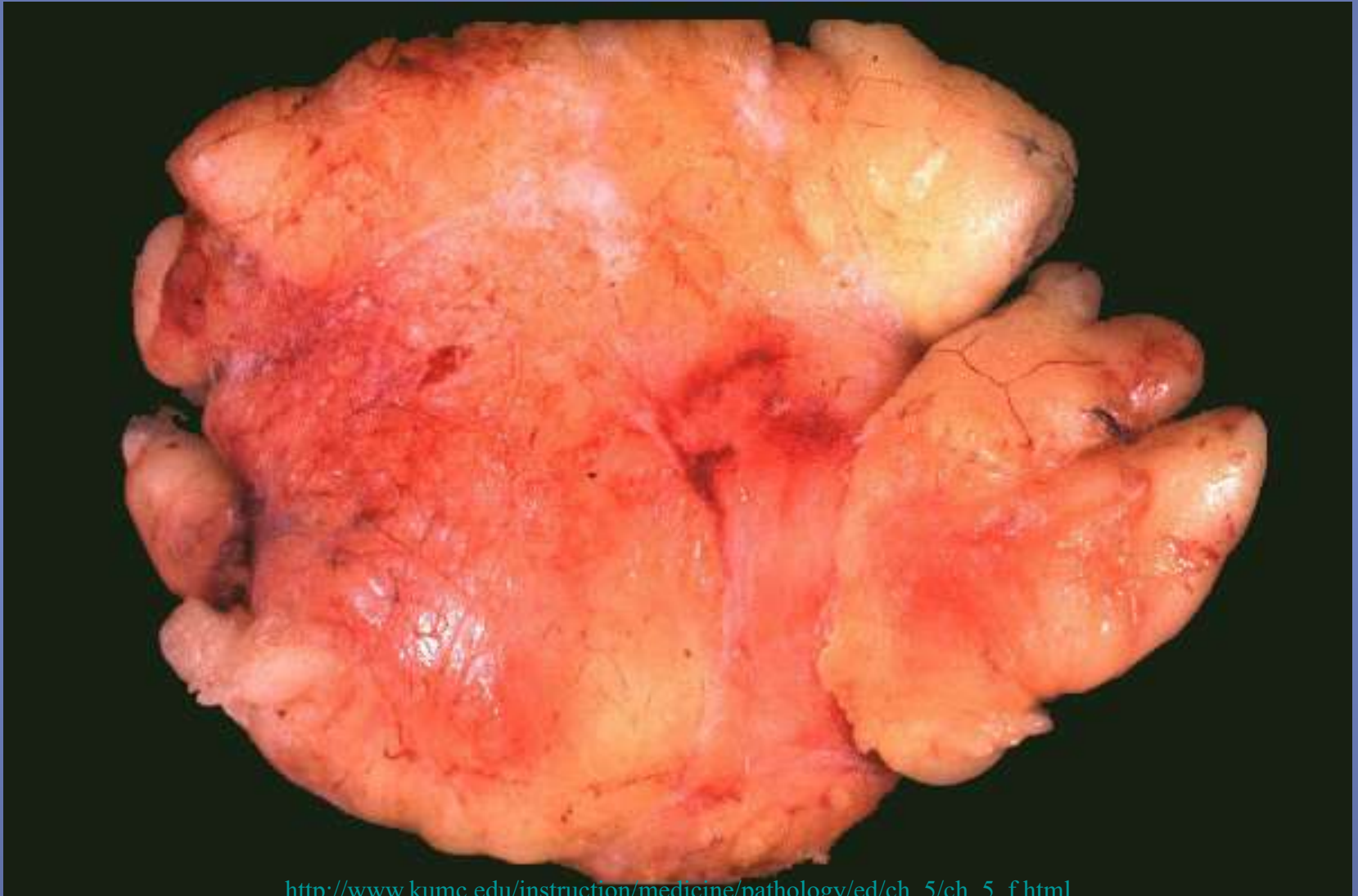
- Benign-harmless tumors
- Malignant-invasive, harmful tumors

# Nevus (pigmented mole)

most common benign neoplasm



# Lipoma (benign fatty tumor)



# Melanoma (malignant tumor)



# Skin excision of malignant melanoma





# Skin Neoplasms

# Basal cell carcinoma



# Basal cell carcinoma--arm



© 1995, Dermatology, University of Iowa

# Kaposi's Sarcoma



# Kaposi's Sarcoma--malignancy

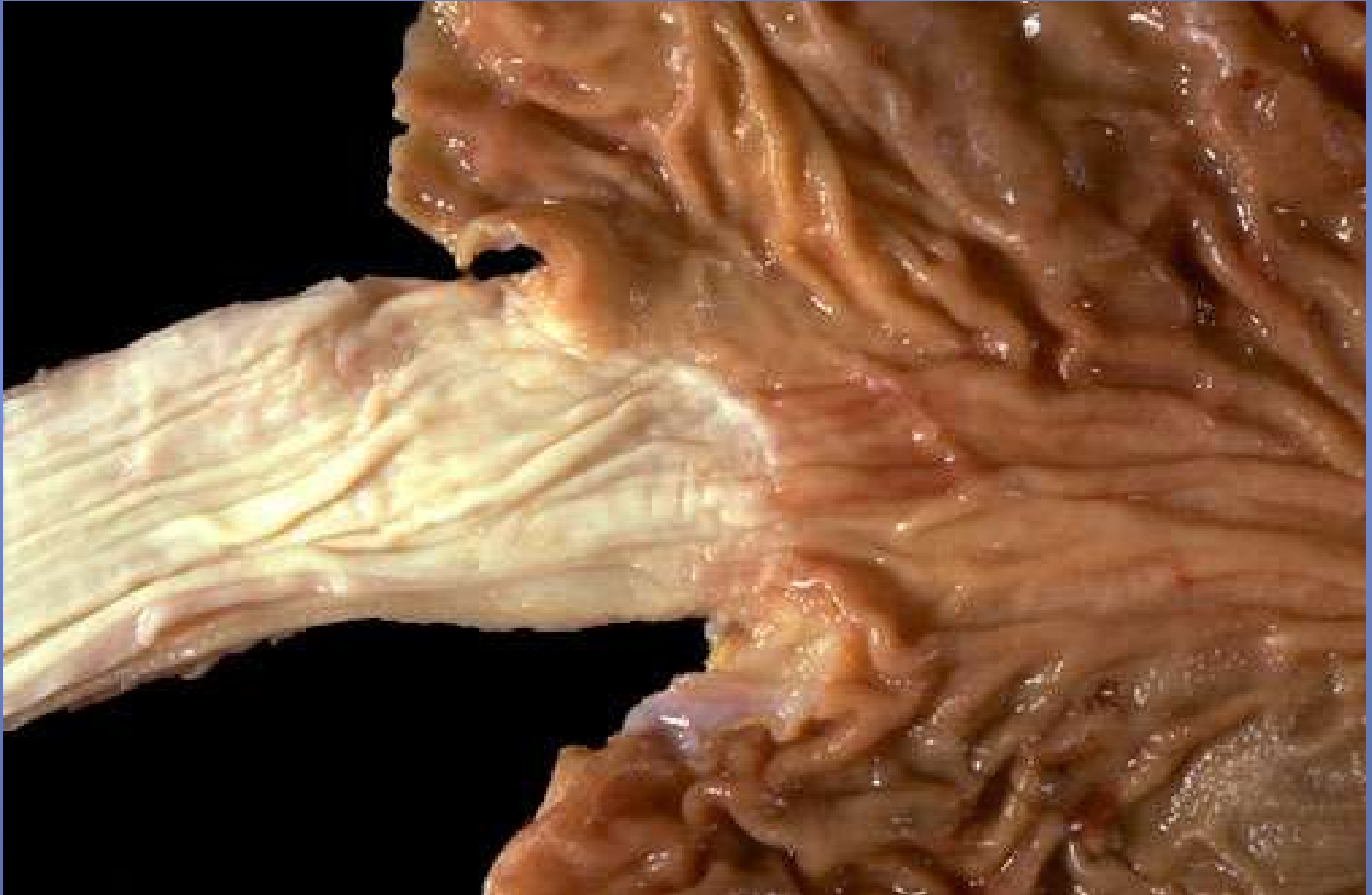


# Digestive System Neoplasms

# Normal stomach

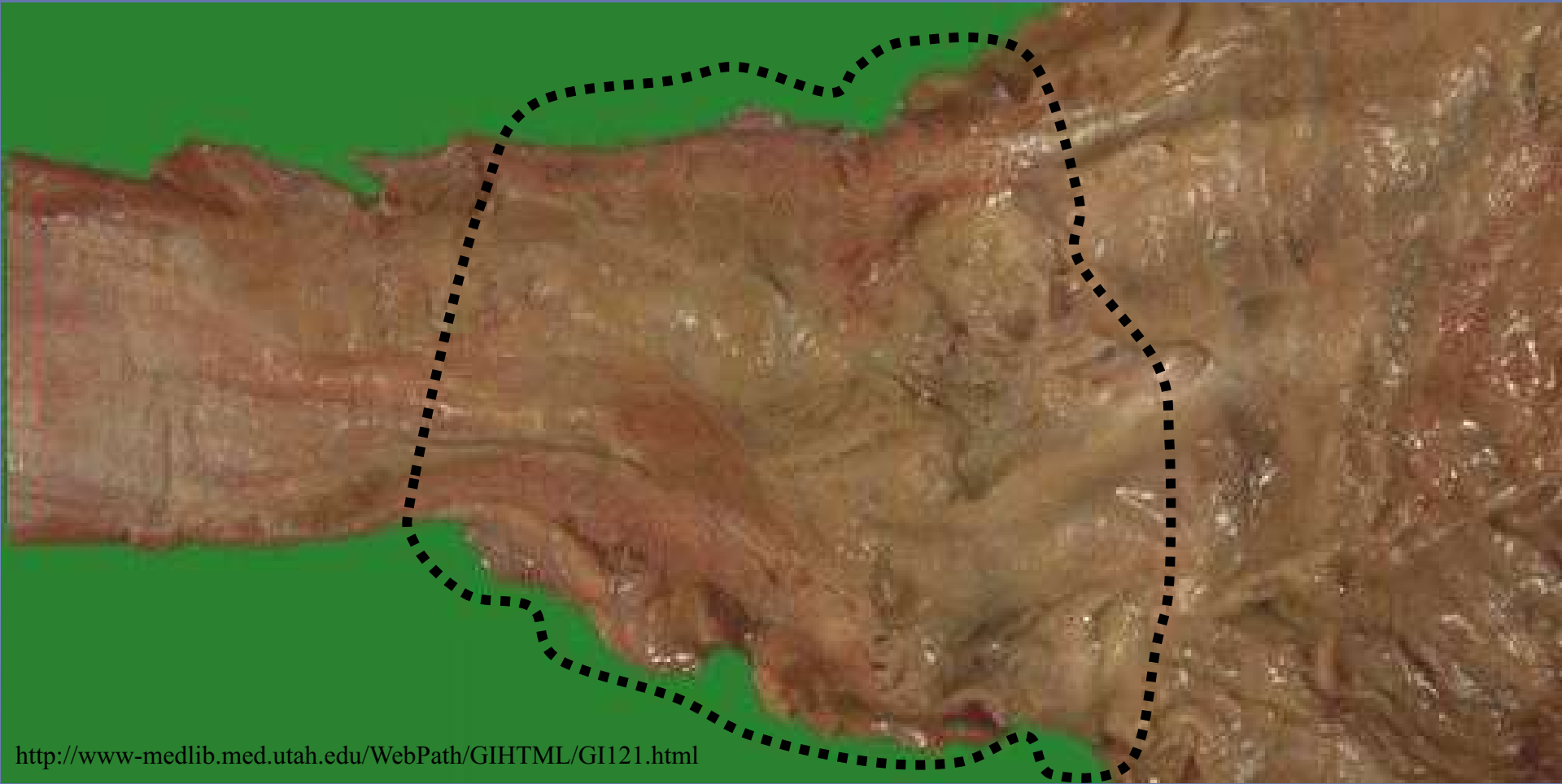


# Normal: esophagus and proximal stomach





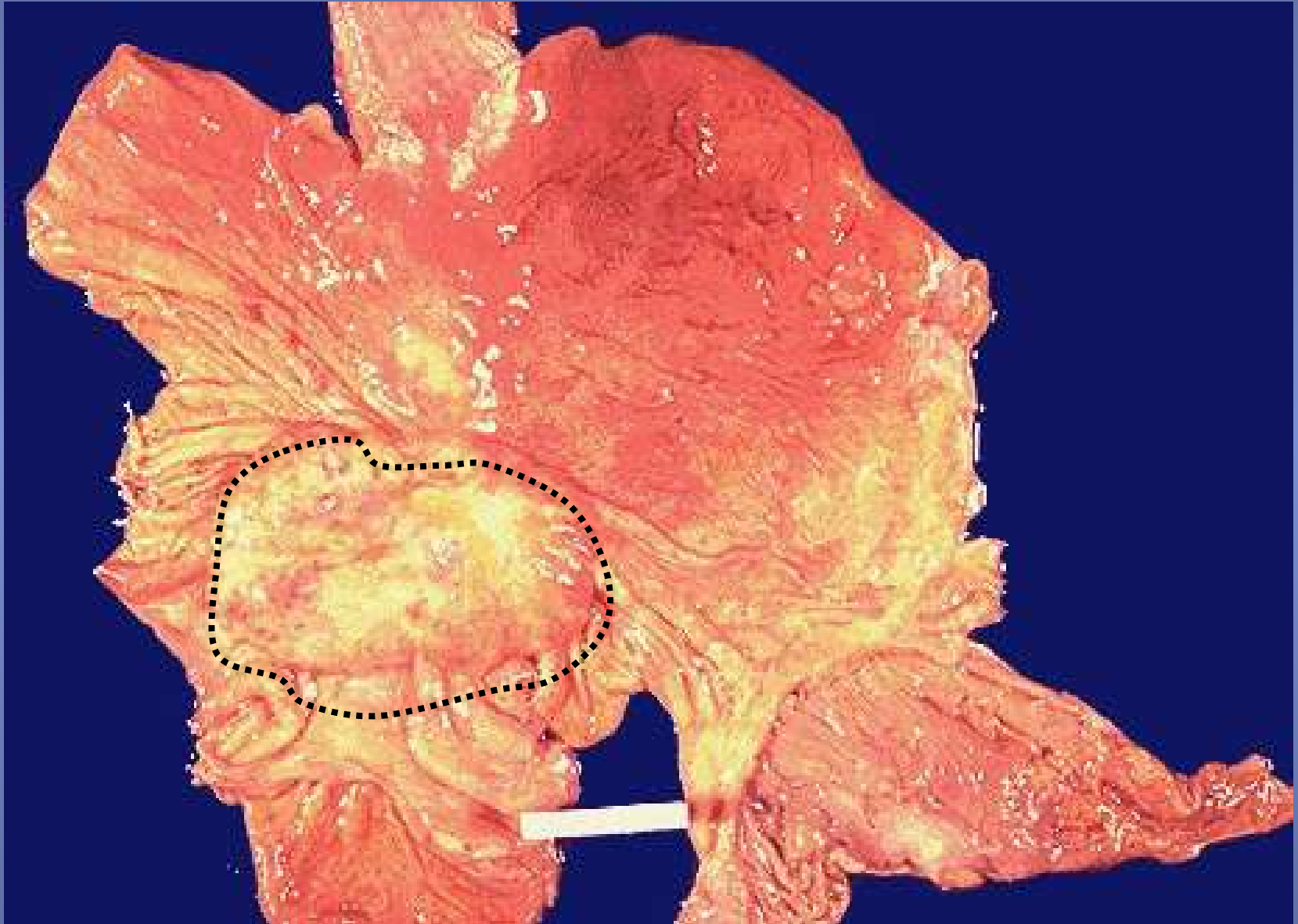
# Esophageal squamous carcinoma



<http://www-medlib.med.utah.edu/WebPath/GIHTML/GI121.html>

ill-defined mass at gastroesophageal junction  
produces mucosal ulceration and irregularity

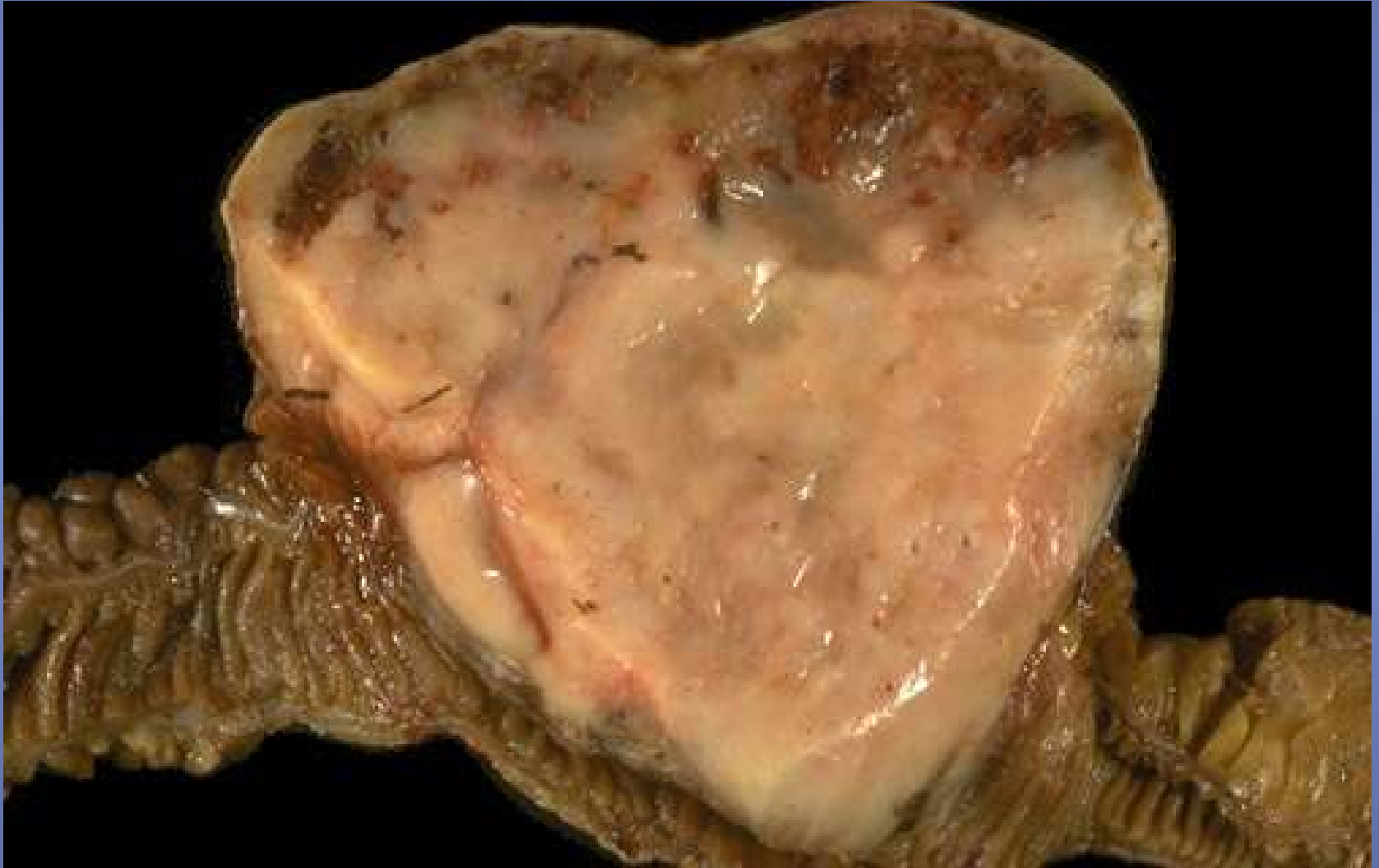
# Gastric adenocarcinoma



# Neoplasm--carcinoid tumor (ileocecval valve)



# Leiomyosarcoma--small bowel



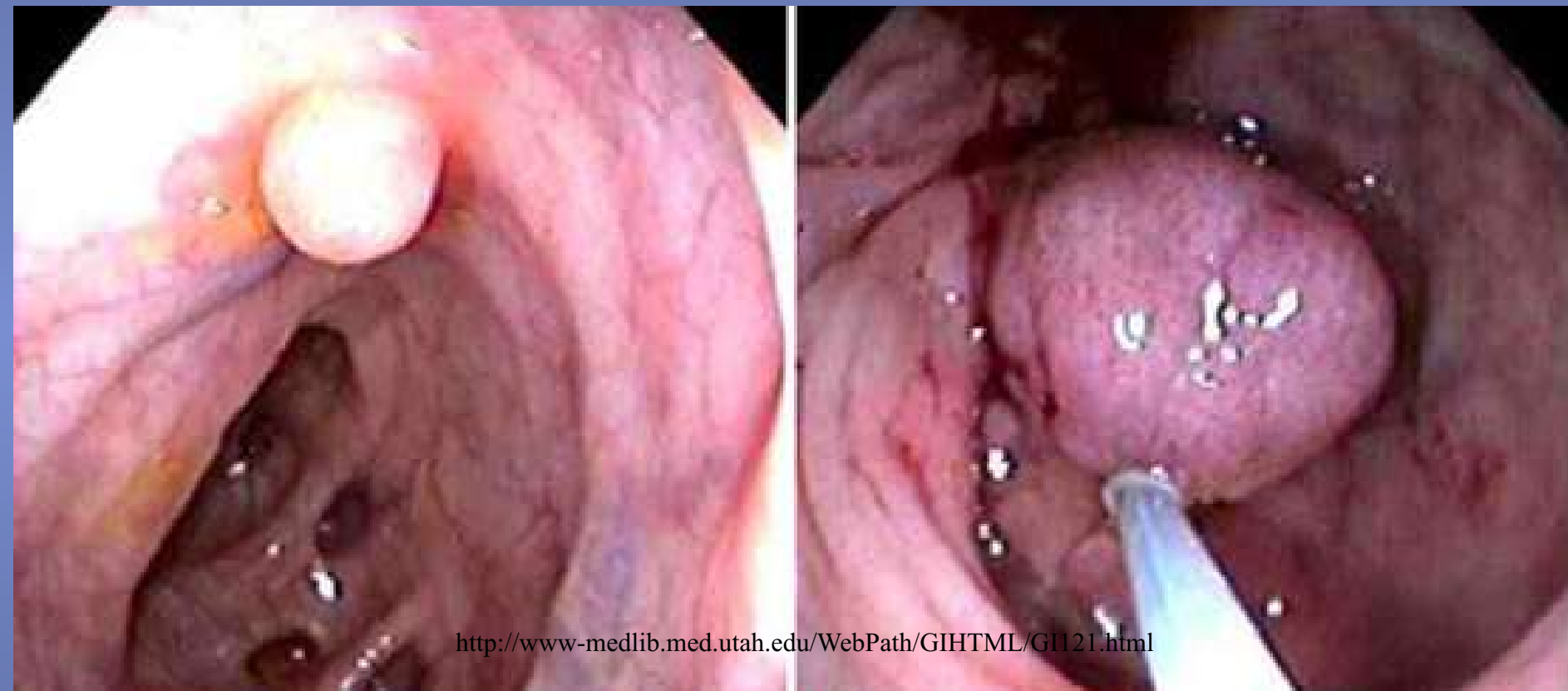
# Encircling adenocarcinoma (rectosigmoid colon)



# Apple-core lesion (intestine) represents encircling adenocarcinoma



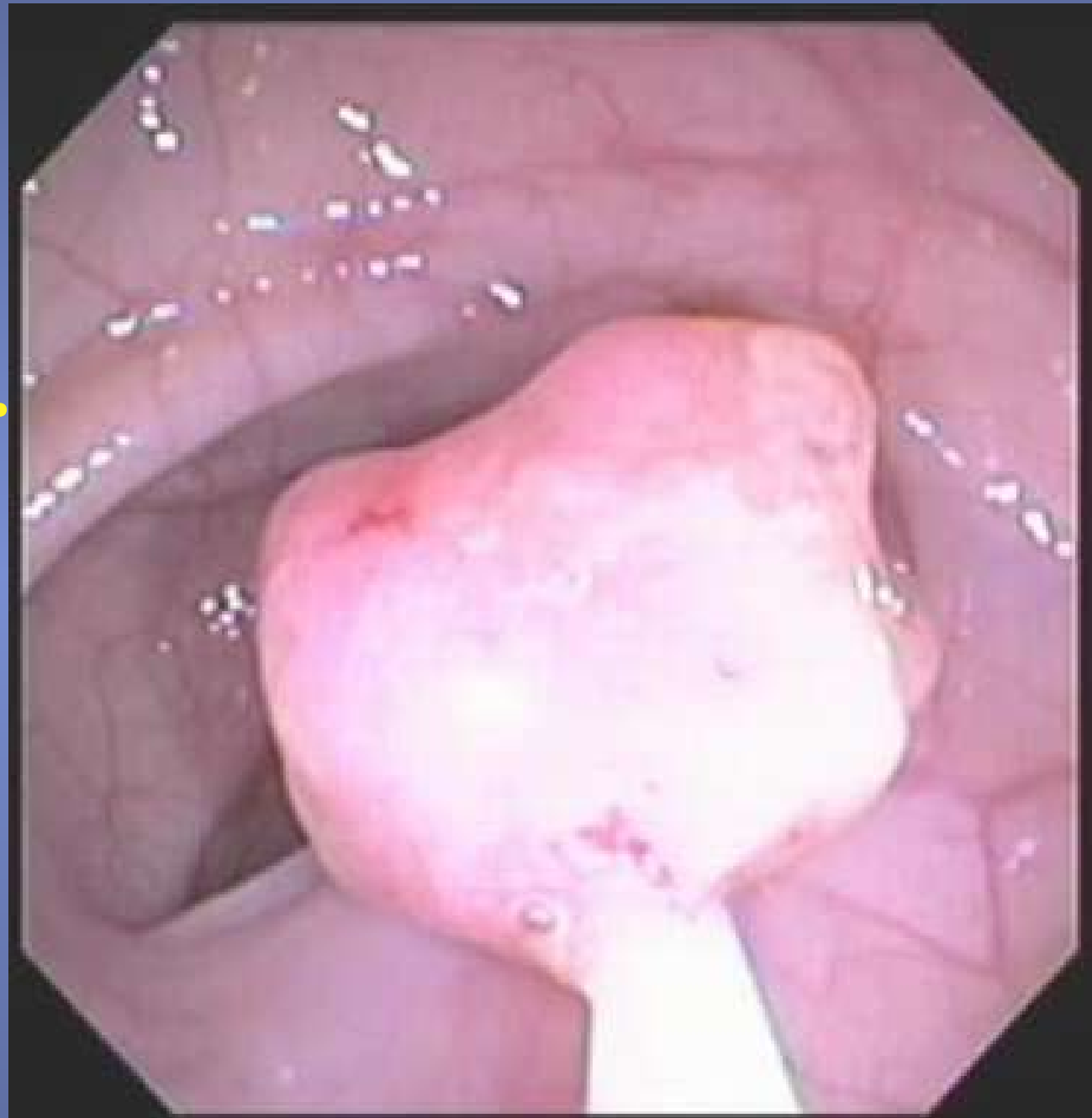
# Tubular adenoma common in adults



<http://www-medlib.med.utah.edu/WebPath/GIHTML/GI121.html>

Small lesions usually benign. Those larger than 2 cm greater risk for cancer.

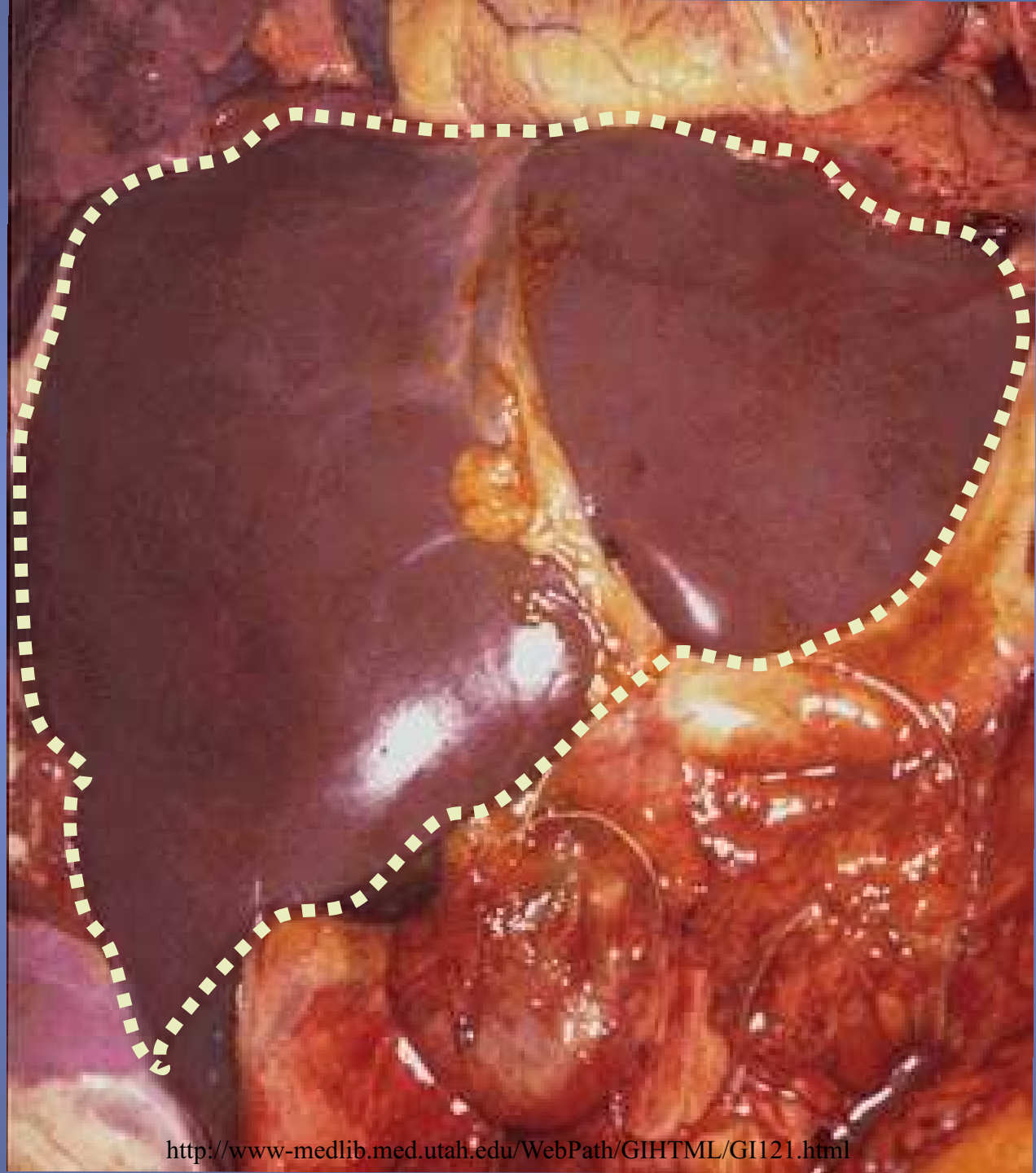
# Large malignant polyp (colon)





# **Digestive Accessory Organ: Liver Neoplasms**

# Normal Liver



# Hepatic adenoma



# Hepatocellular carcinoma

such cancers generally arise in setting of cirrhosis (viral hepatitis/chronic alcoholism)

<http://www-medlib.med.utah.edu/WebPath/NEOHTML/NEOPL022.html> <http://www-medlib.med.utah.edu/WebPath/GIHTML/GI121.html>



# Metastatic lesions: liver

<http://www-medlib.med.utah.edu/WebPath/NEOHTML/NEOPL025.html>



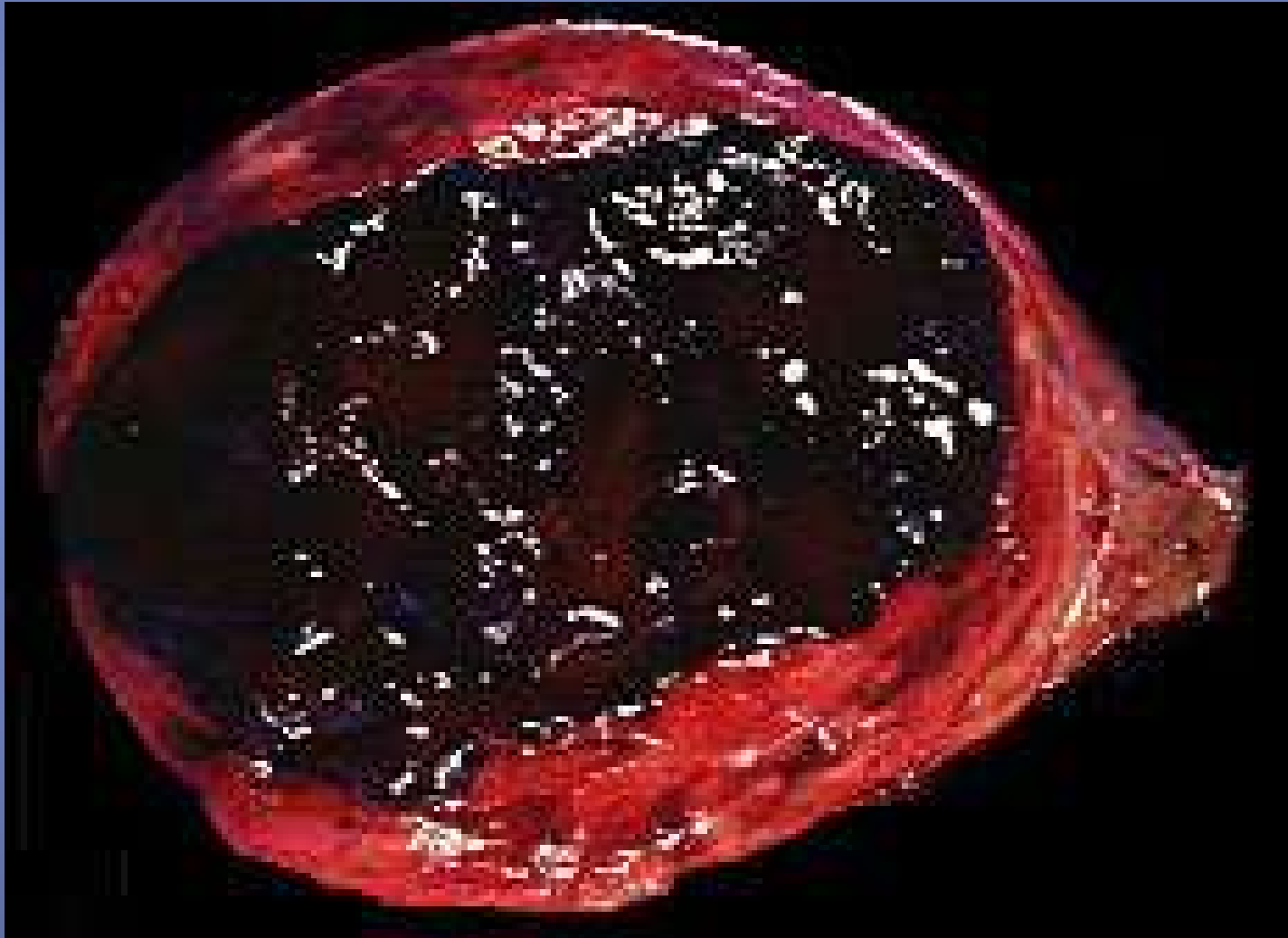
# CT scan liver (transverse cut)



metastatic liver lesions from colonic  
adenocarcinoma

# Hepatic adenoma

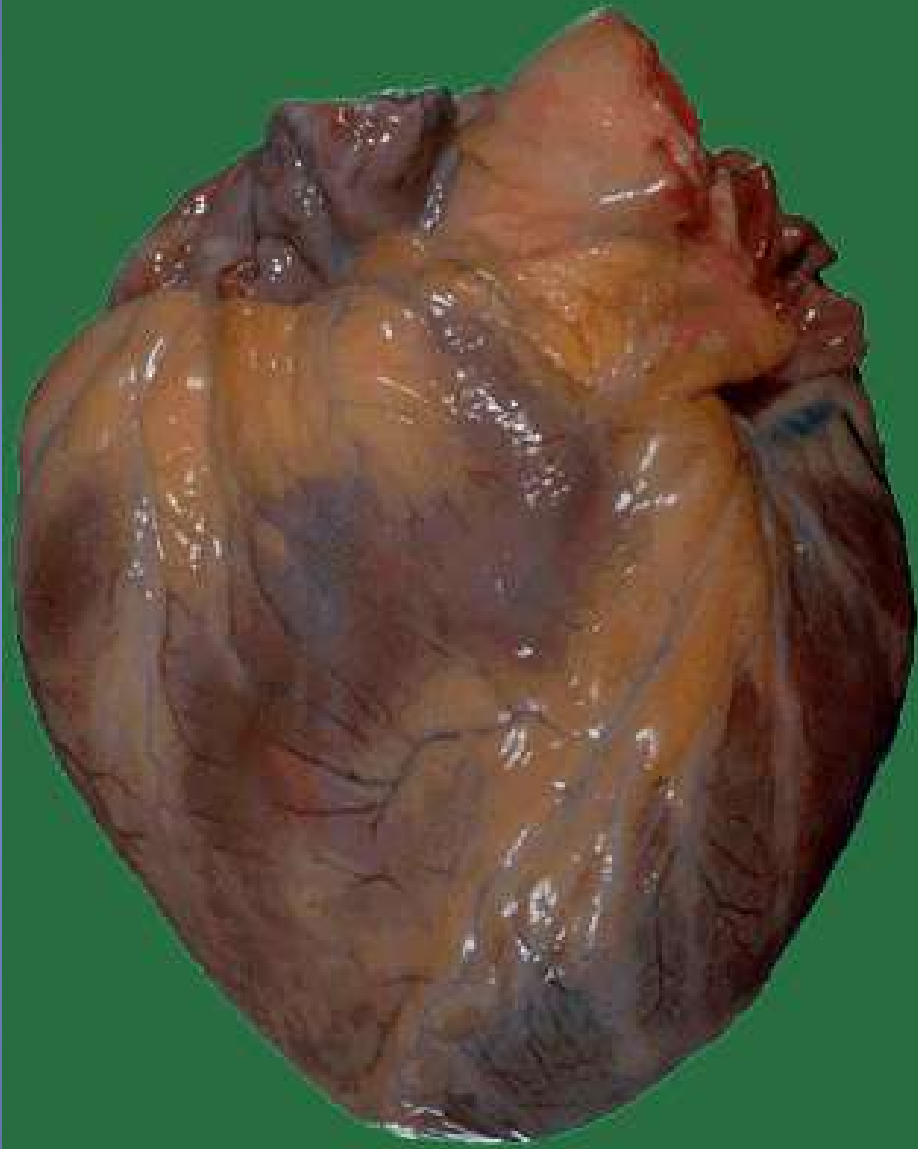
partially filled with blood (benign)



# Heart and Lung Neoplasms

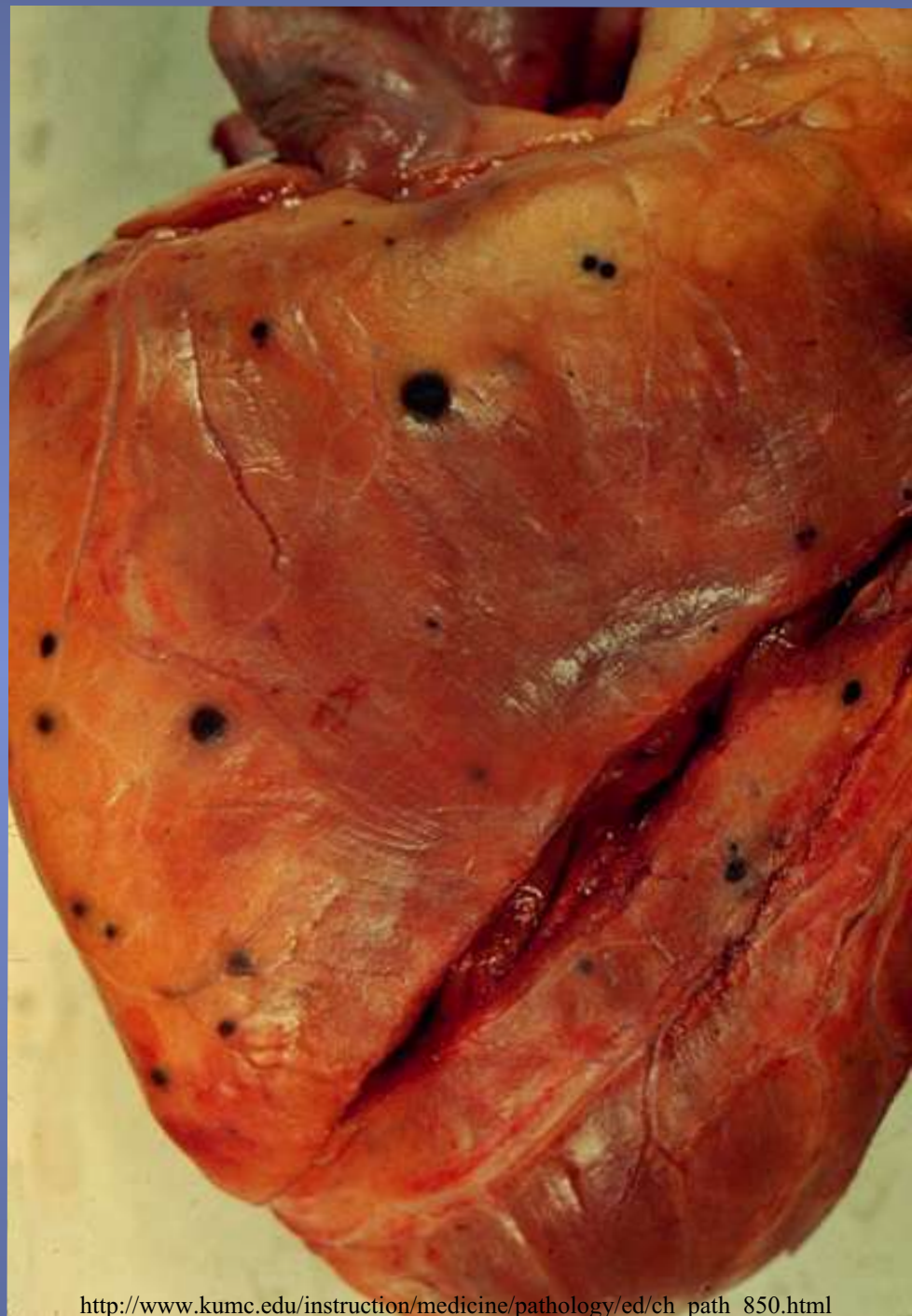


# Normal heart



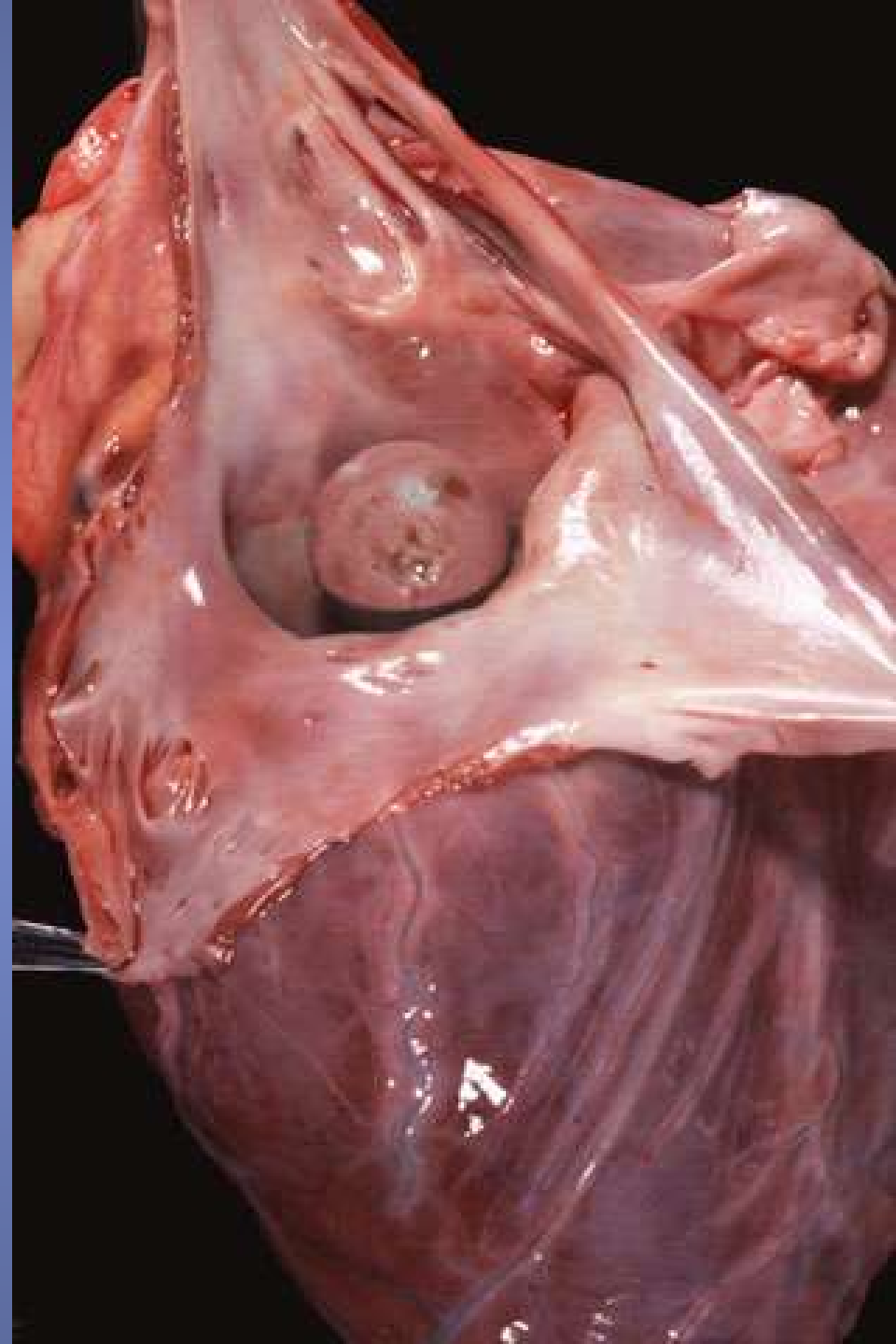
# Metastatic melanoma of heart

Metastases to heart are rare, except for melanomas

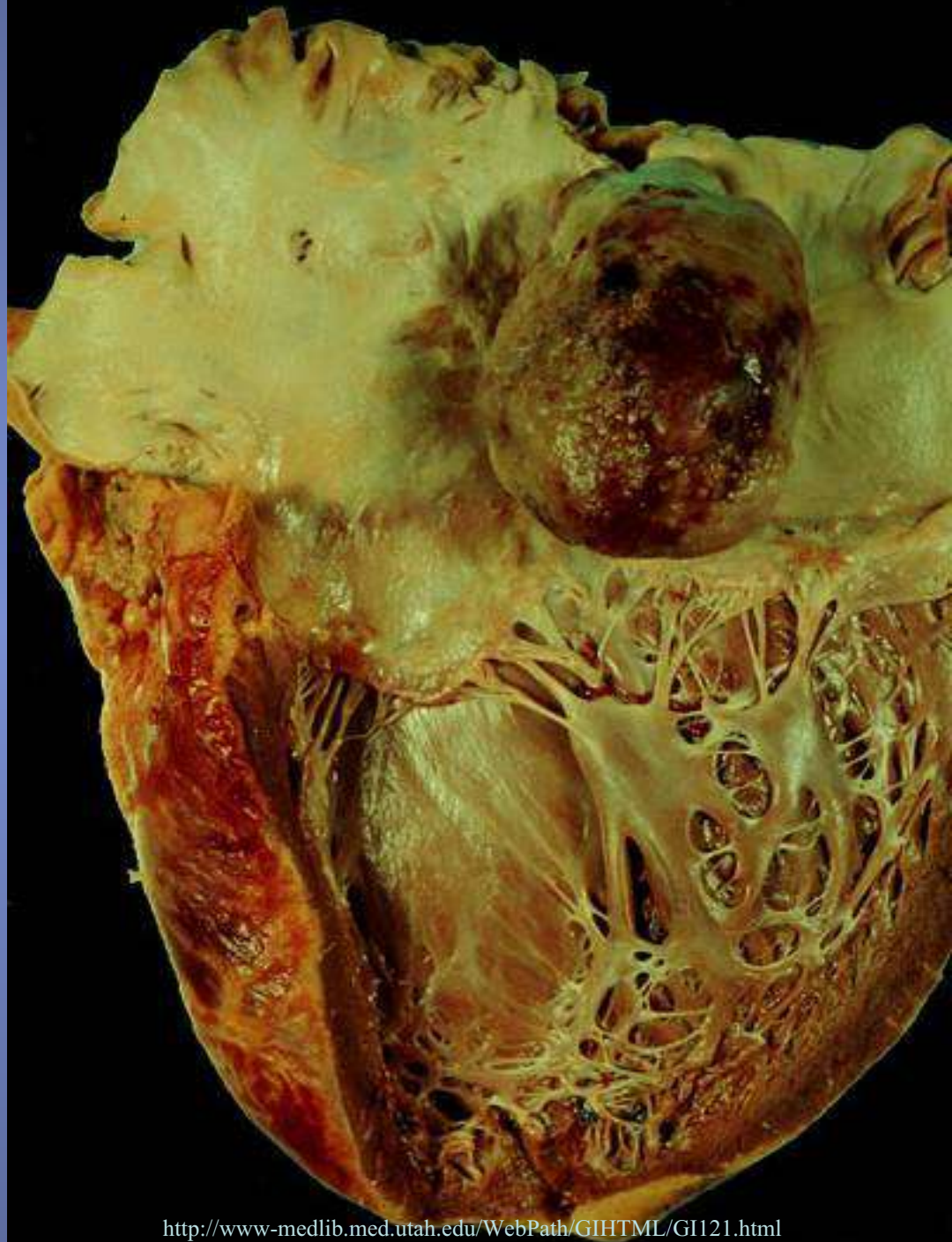


# Atrial Myxoma

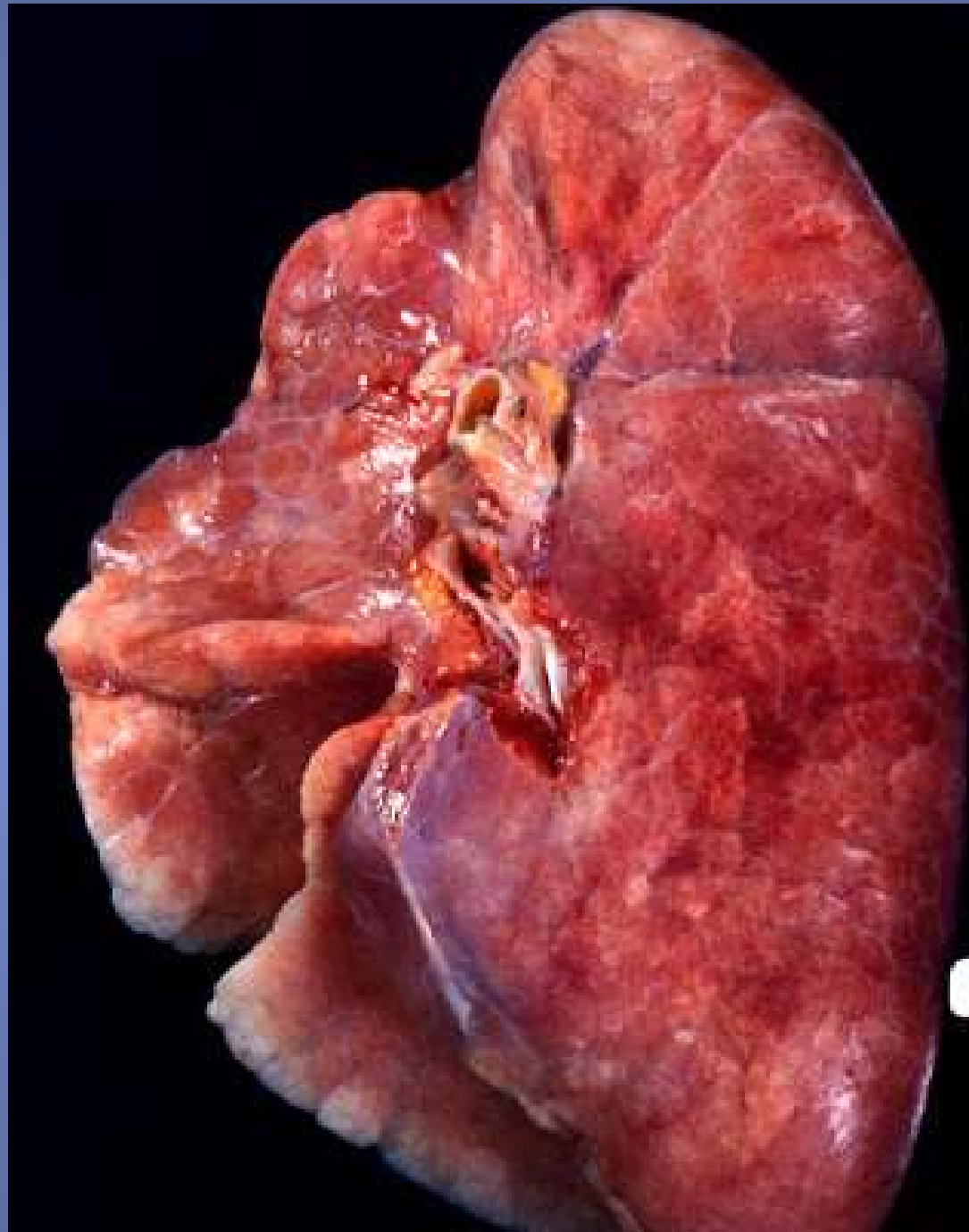
(benign masses most often attach to atrial wall-- sometimes arise on valve or in ventricle)



# Myxoma (left atrium)



# Normal lung

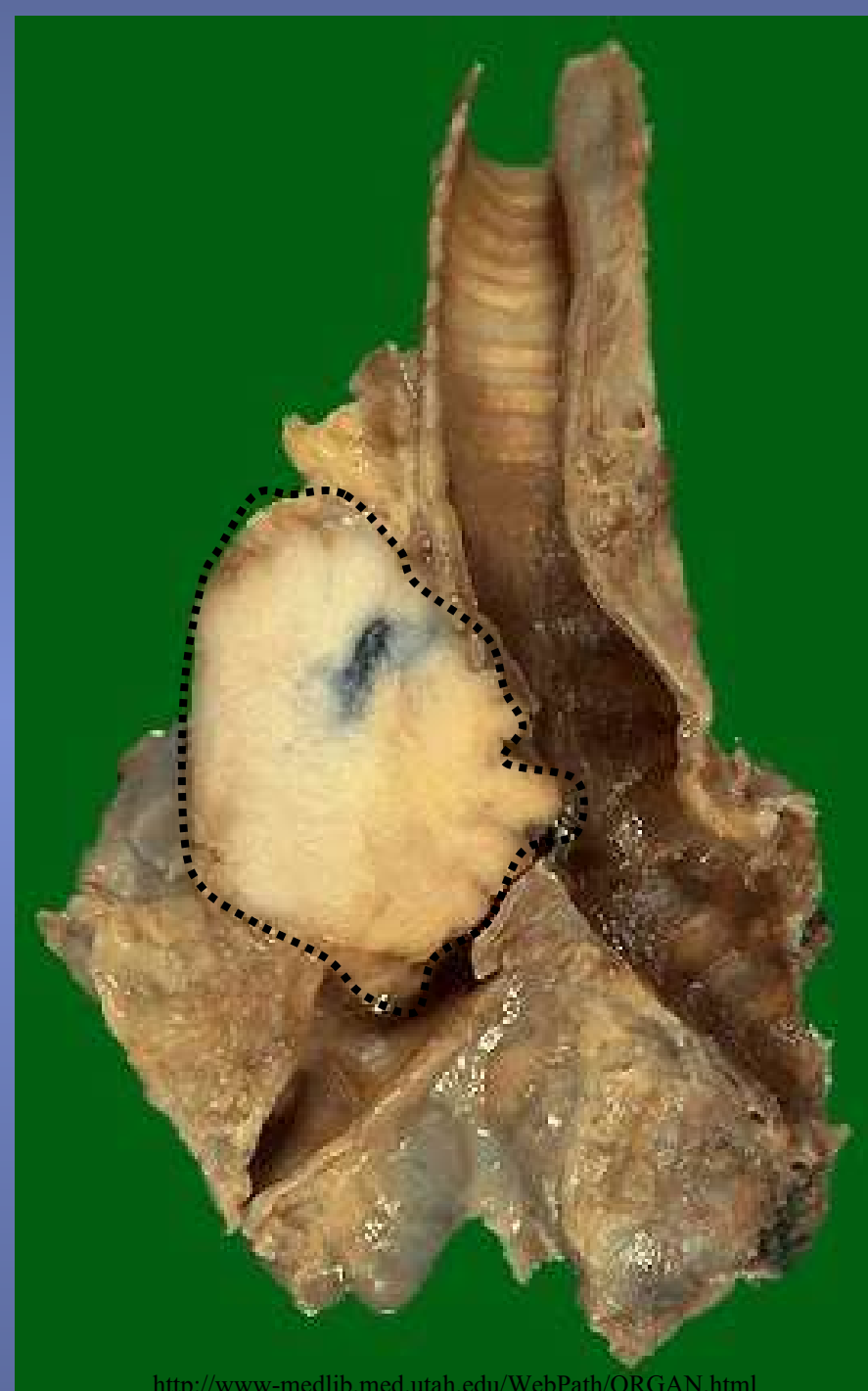




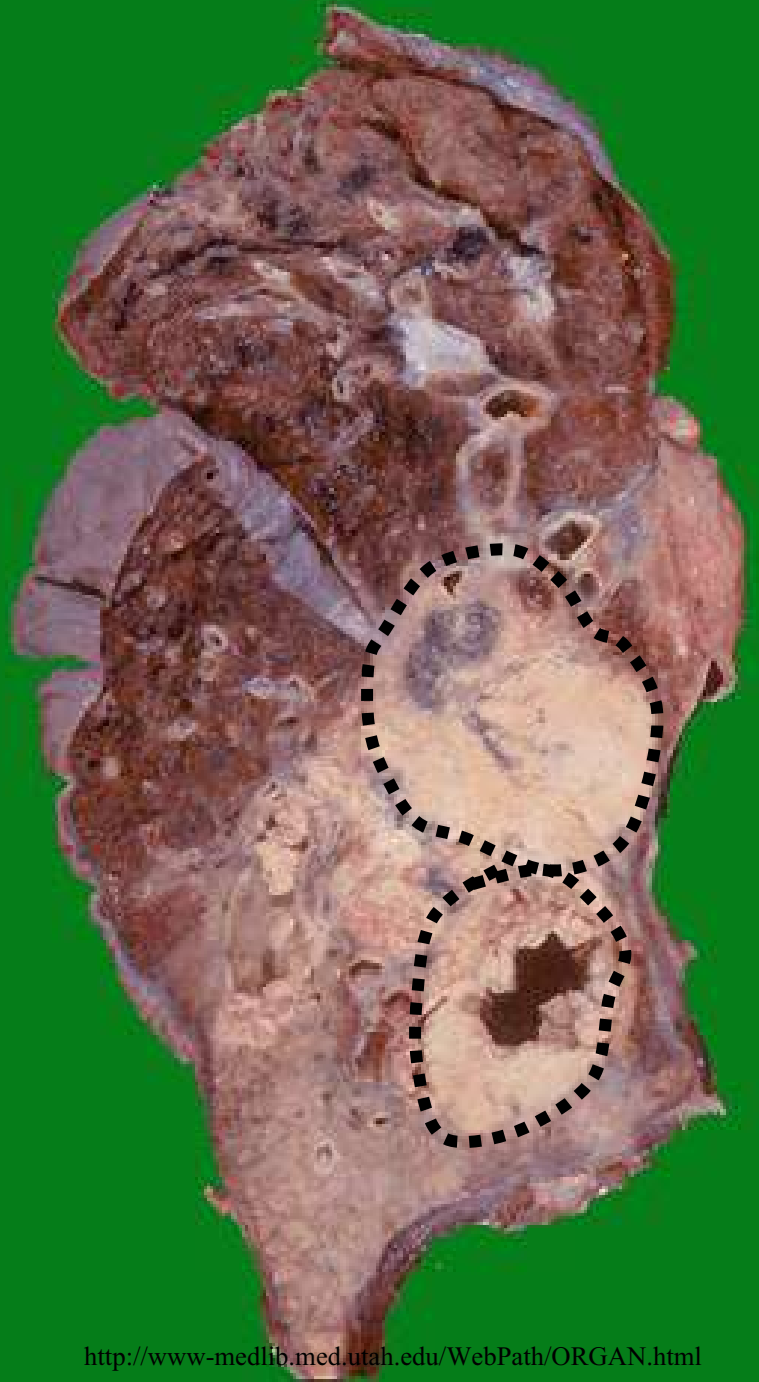
Lung cancer  
spreading  
along bronchi  
into lung  
tissue



# Squamous cell carcinoma-- right bronchus & lung

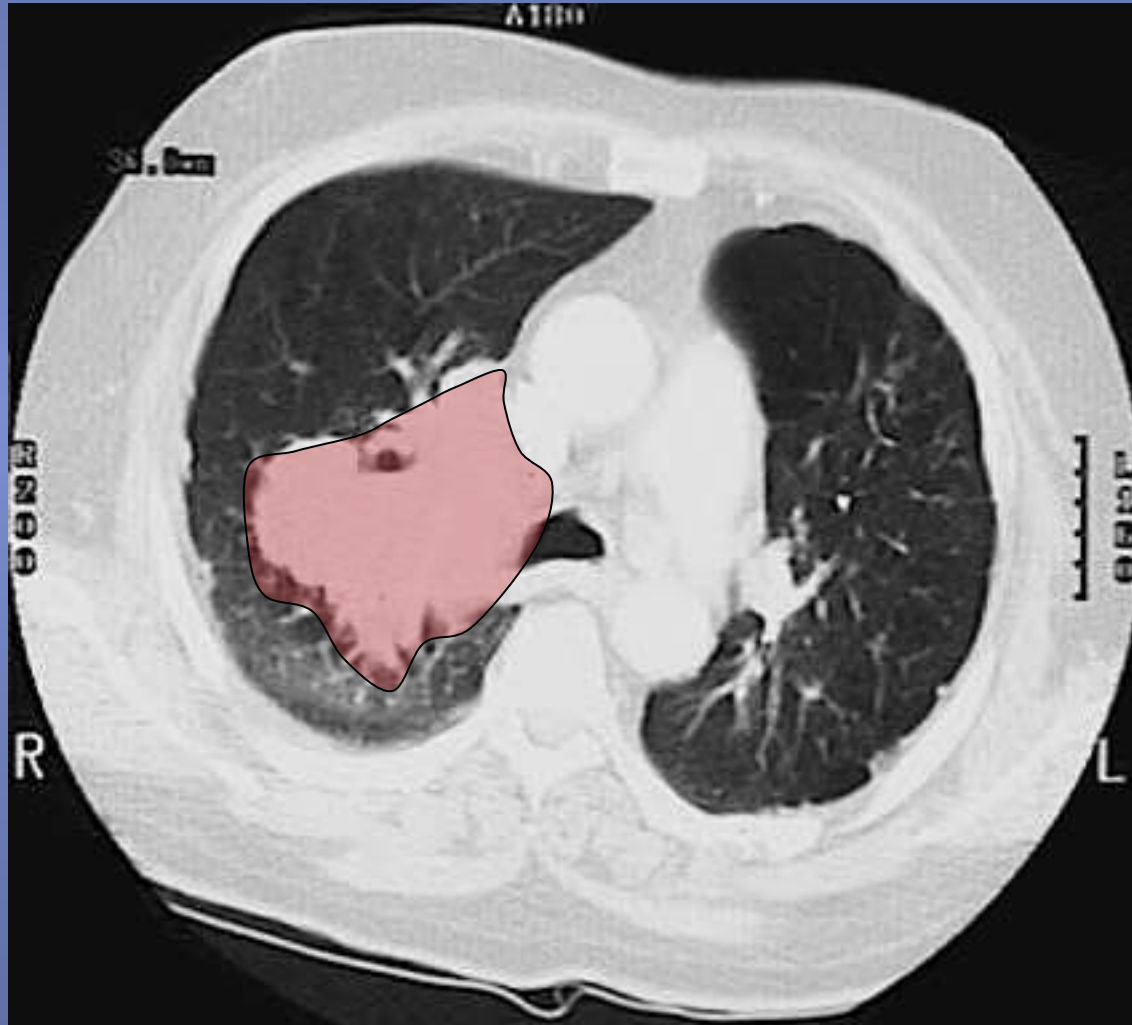


# Squamous cell carcinoma (lung)

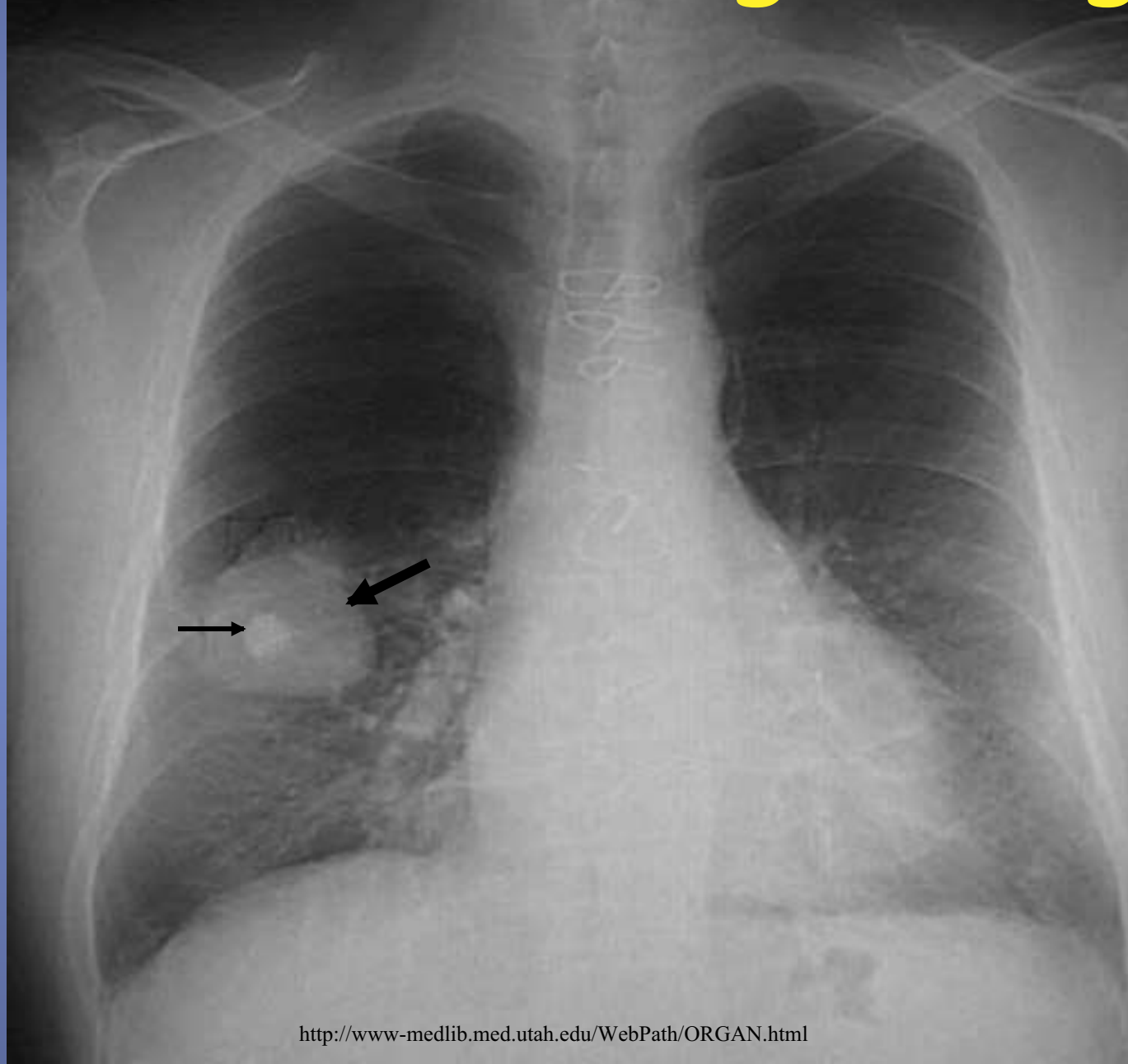




# CT Scan--large squamous cell carcinoma right lung & bronchus



# Carcinoma -- right lung



# Hamartoma-benign lung neoplasms



# Peripheral adenocarcinoma of lung

Primary lung tumor;  
occurs more in non-  
smokers & those  
smokers who quit.



# Anaplastic (oat cell) carcinoma of lung



# Large metastatic nodules (lung)

Metastases to lungs  
more common than  
primary lung neoplasms  
because so many other  
tumors metastize to  
lungs.



# Female Neoplasms

# Normal uterus, fallopian tubes, & ovaries

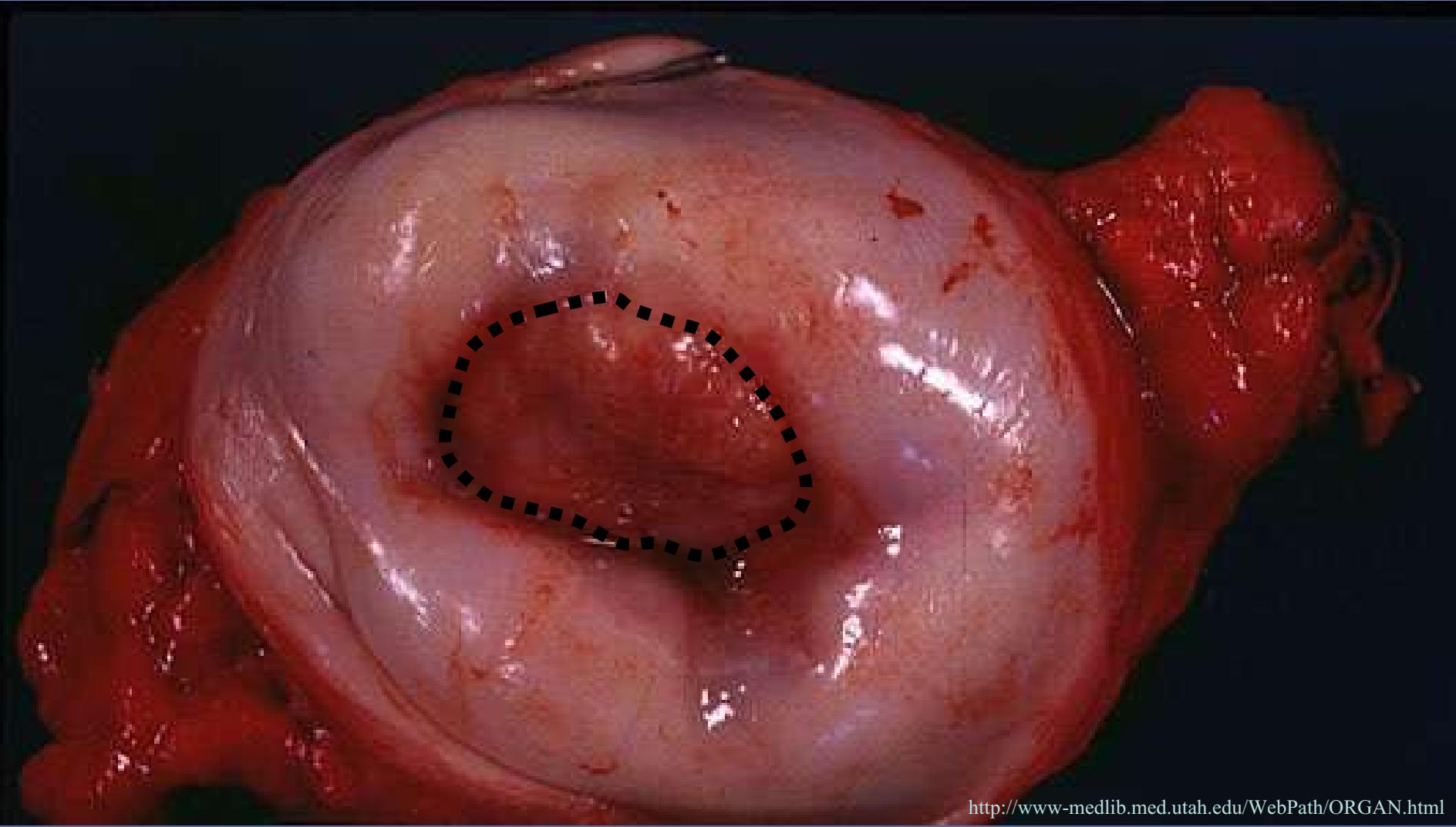




# Normal cervix (no pregnancies)



# Uterine/cervix squamous cell carcinoma

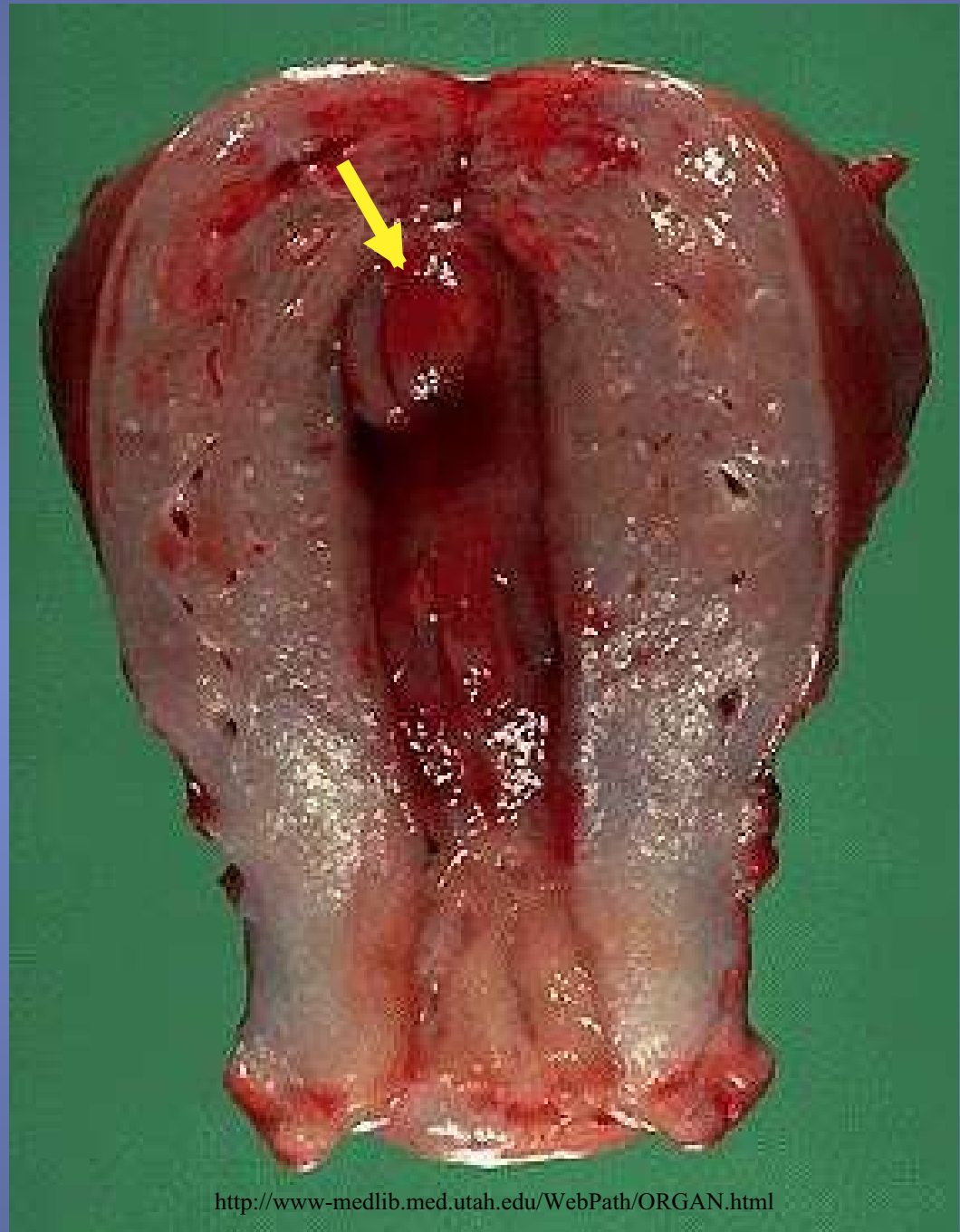


# Cervical squamous cell carcinoma

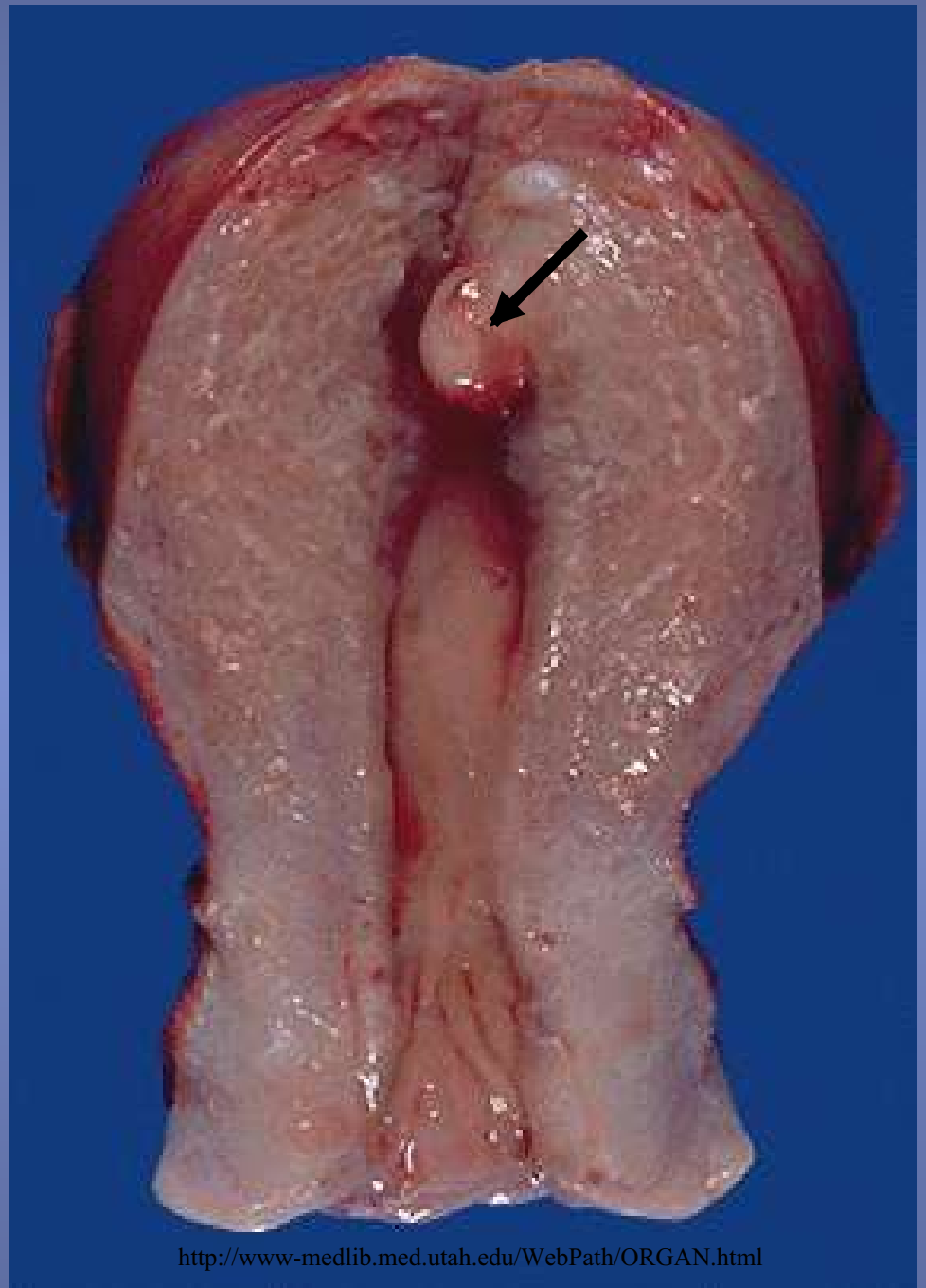


# Endometrial polyp

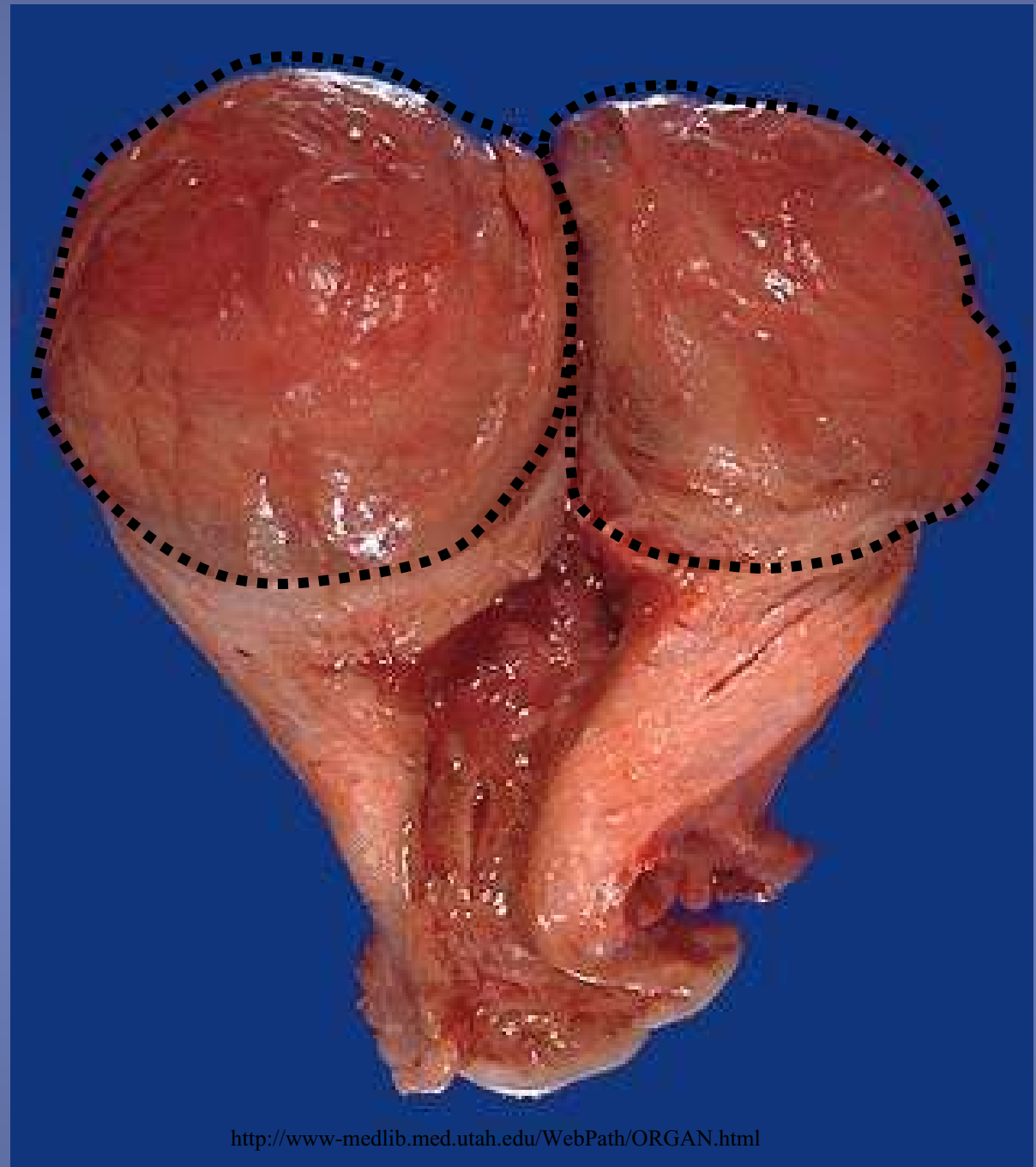
(benign--may cause uterine bleeding)



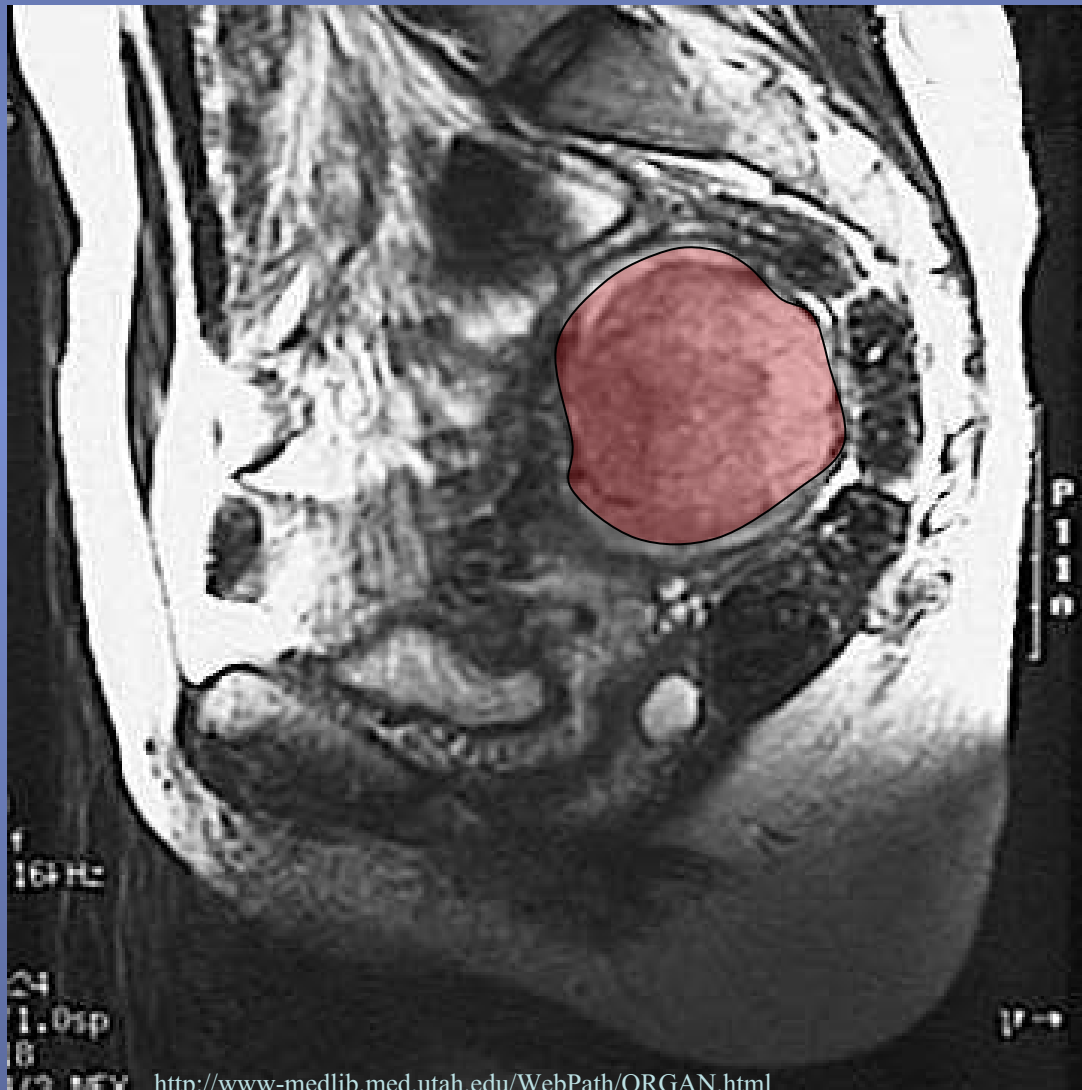
# Submucosal leiomyoma (uterus-- benign)



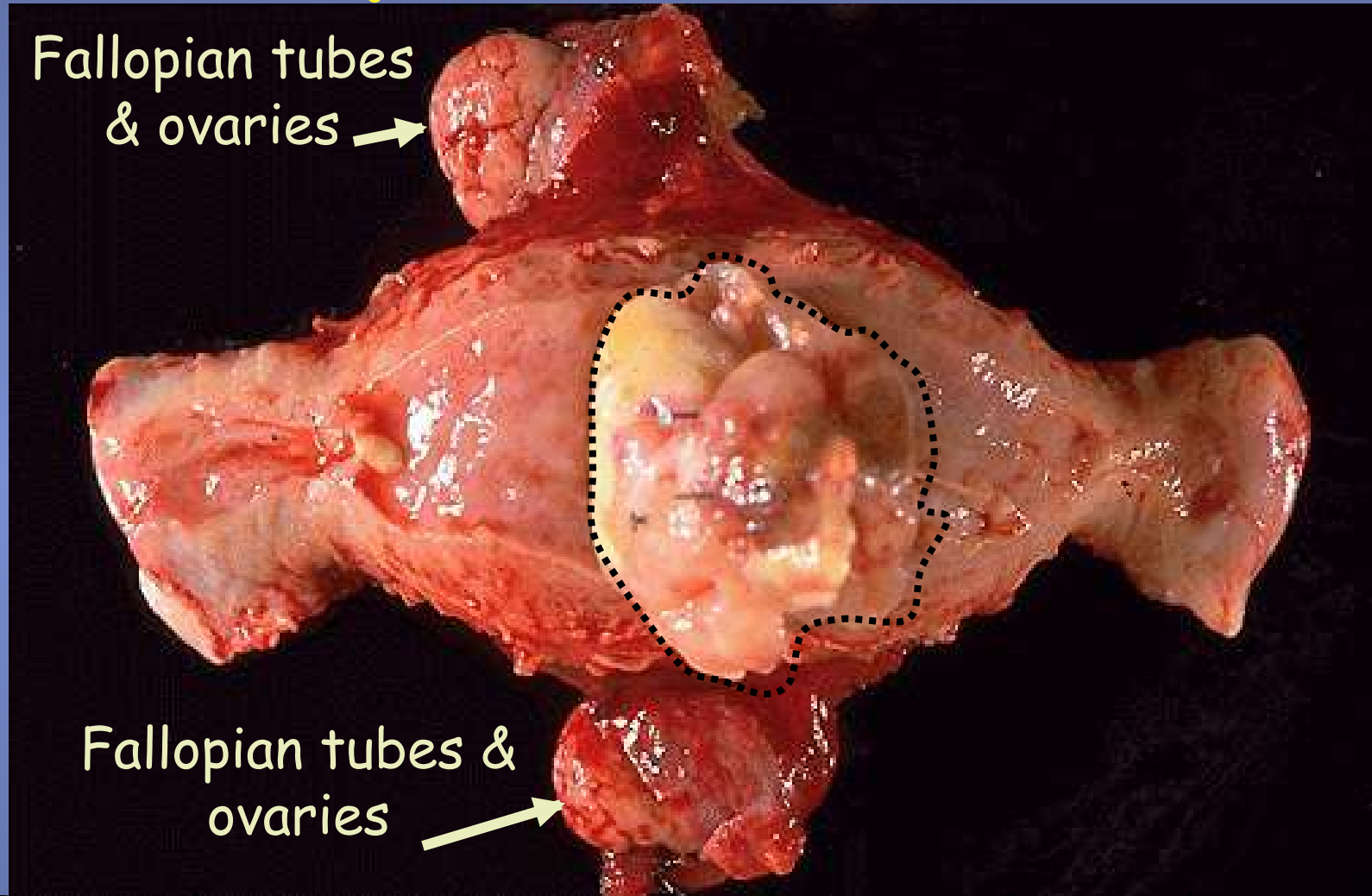
# Large uterine leioma



# MRI Scan of uterine leiomyoma



# Leiomyosarcoma (uterus)



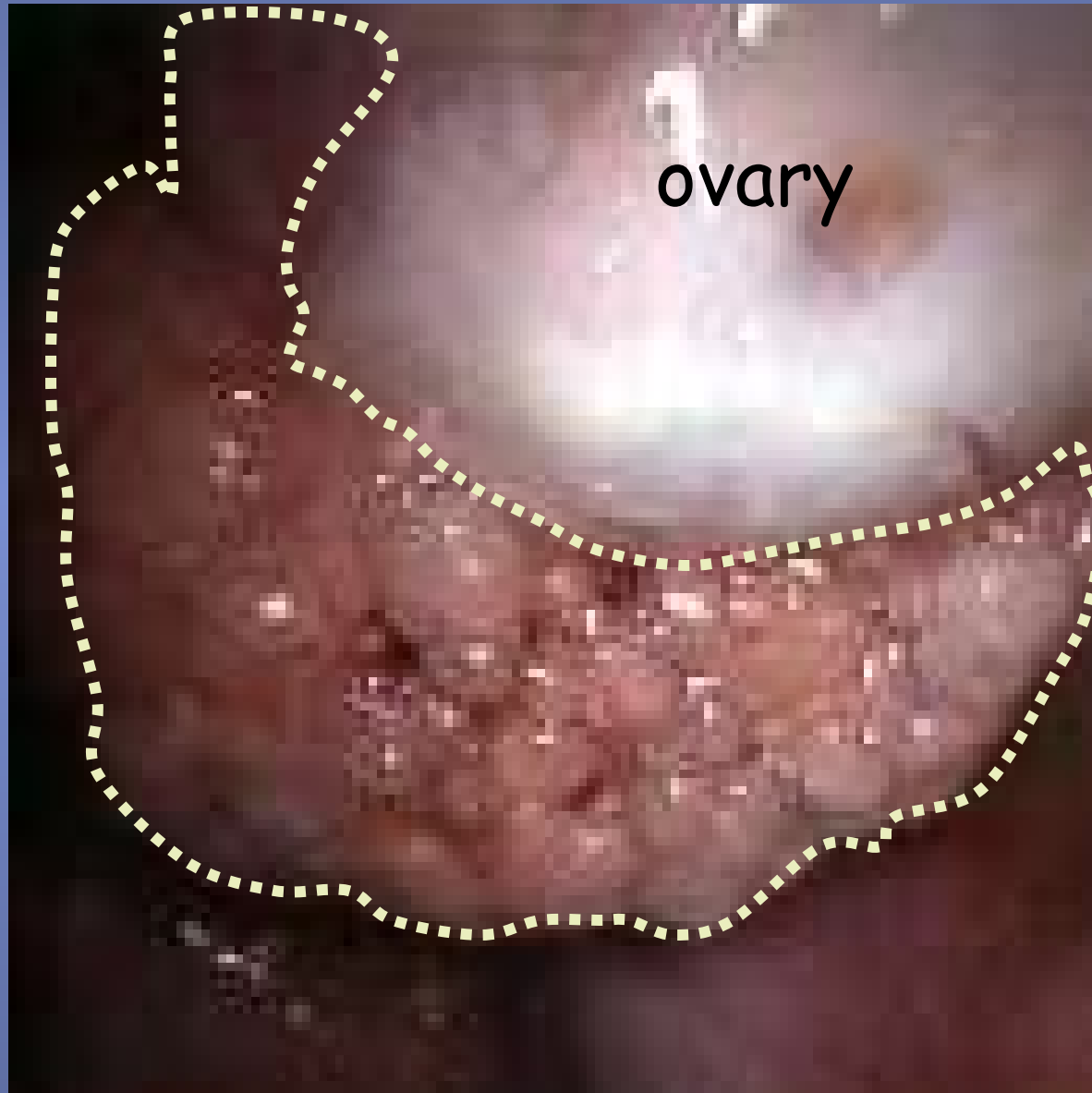
Irregular mass suggests this may be malignant.



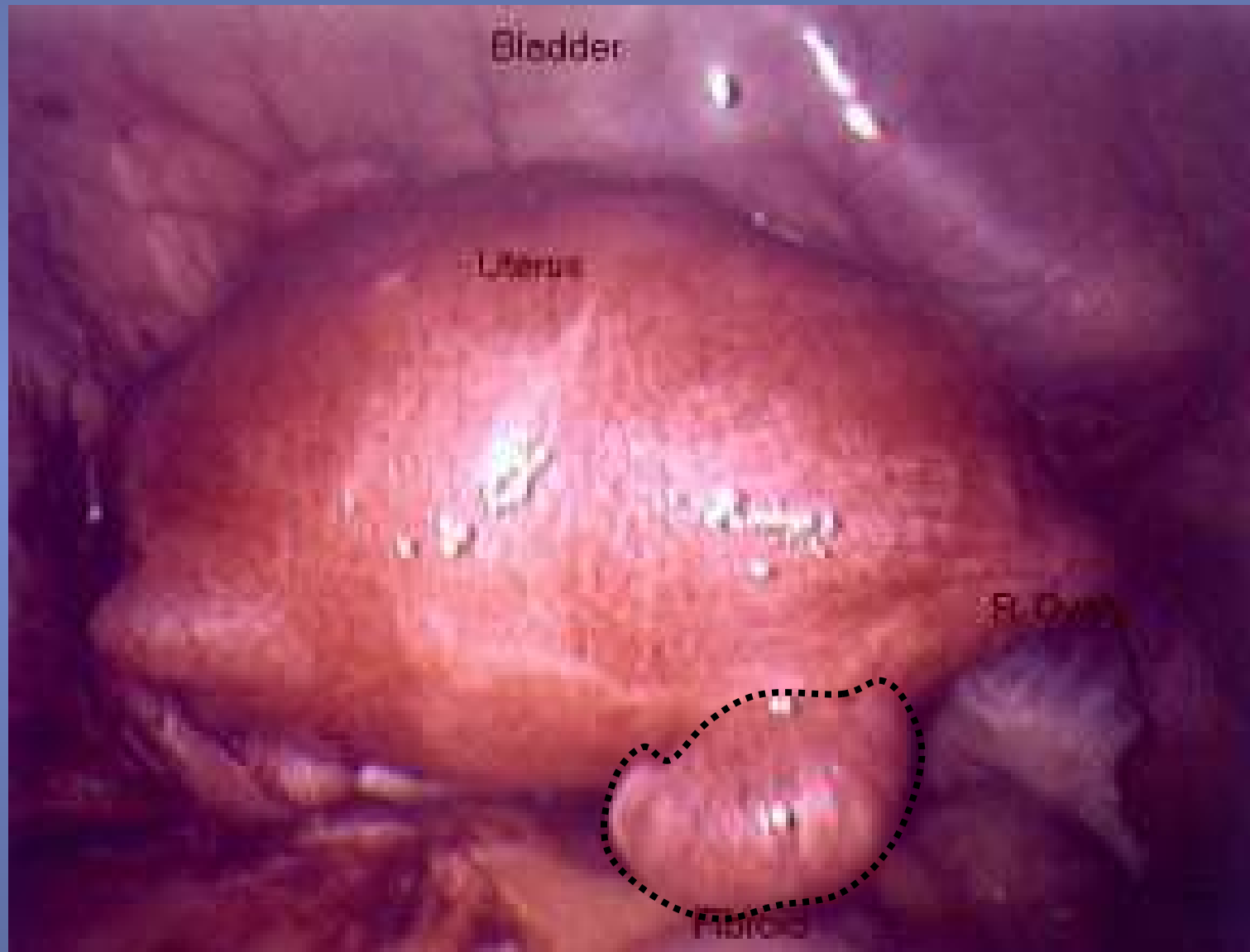
# Close-up normal ovary



# Ovarian cancer



# Uterine fibroid--laparoscopy



# Huge fibroid tumors



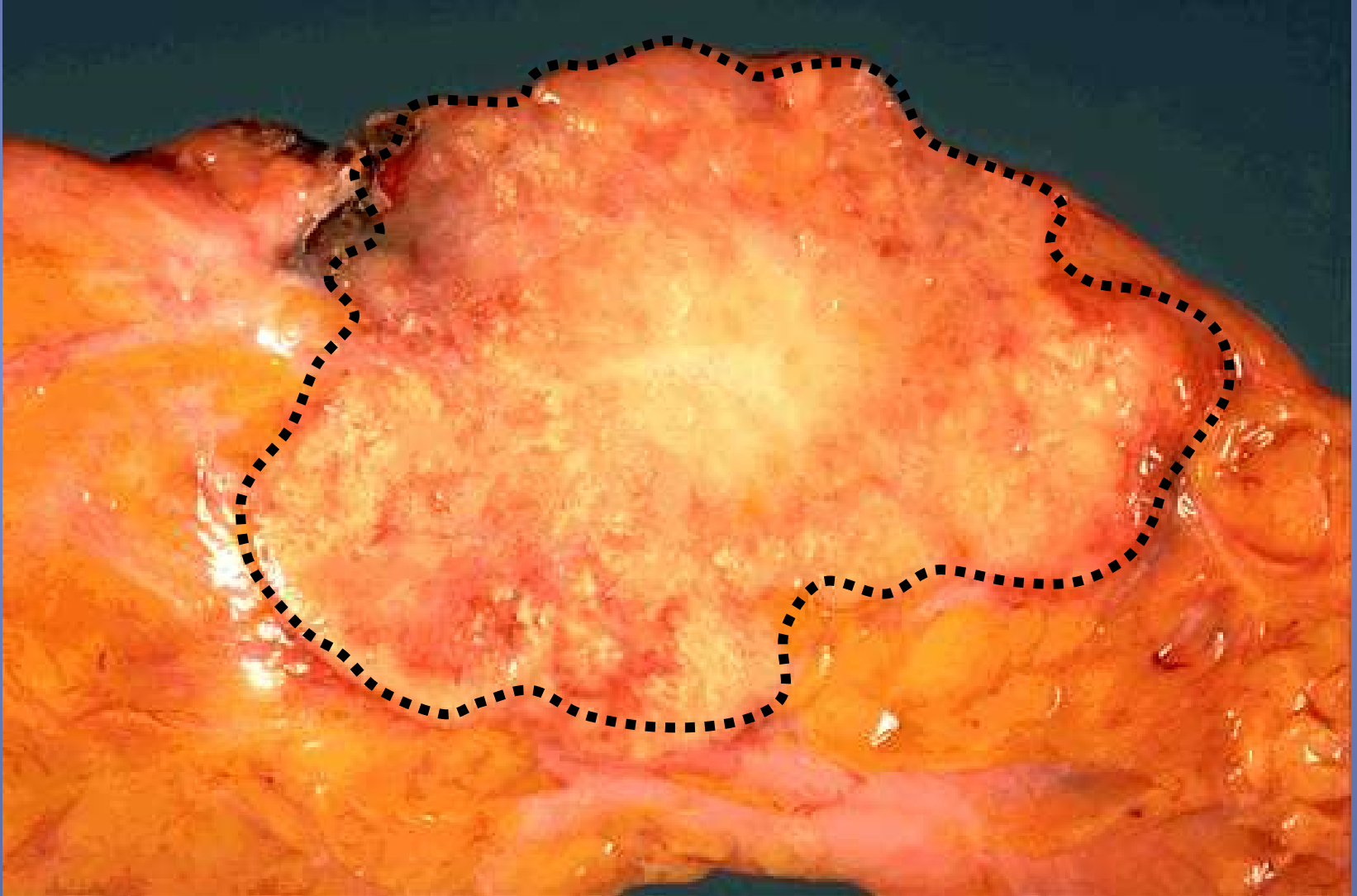
# Paratubal cyst (benign)



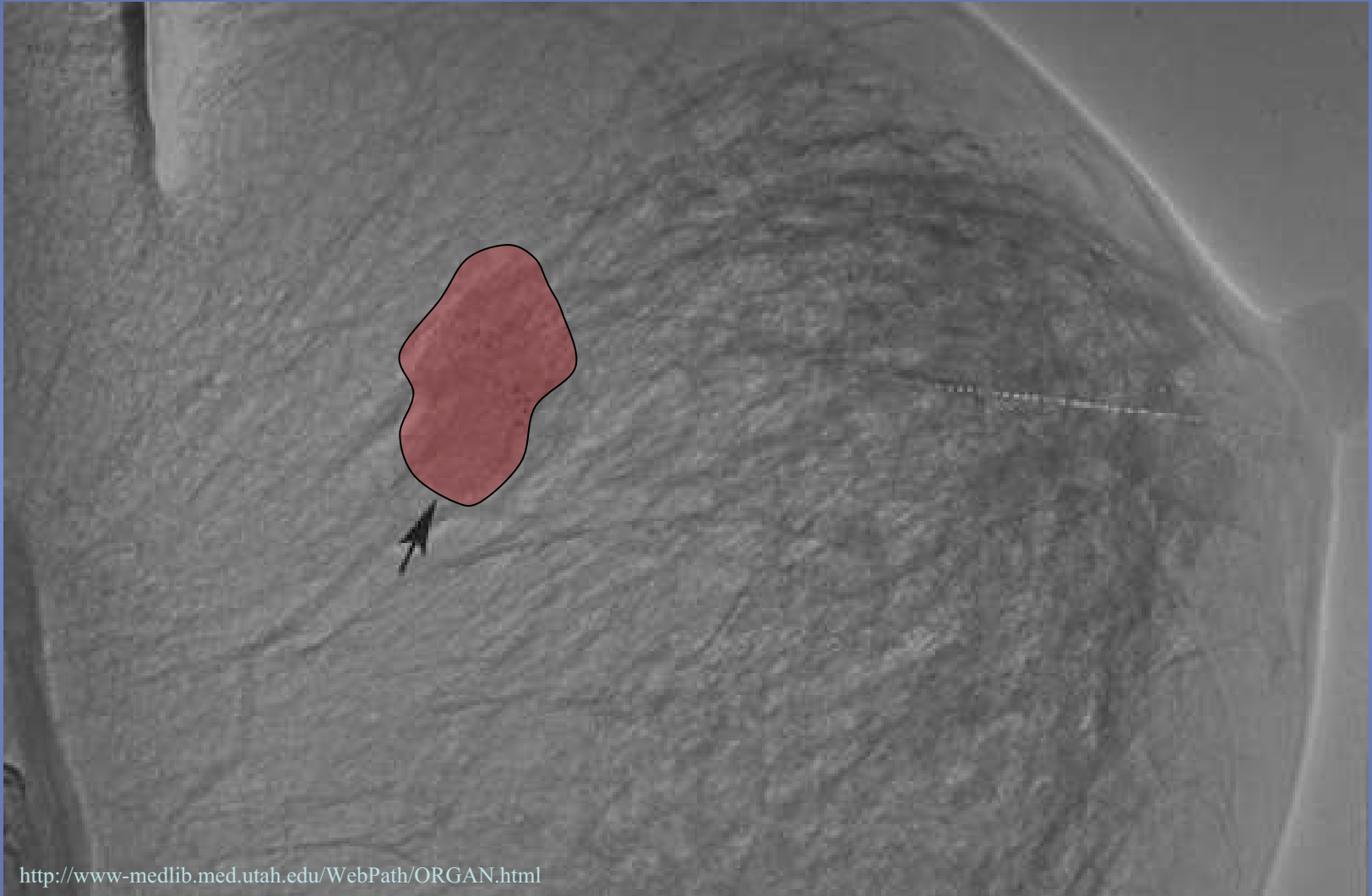
# Breast cyst (fibrocystic breasts)



# Infiltrating ductal carcinoma (breast)



# Mammogram--breast tumor



Fine needle aspiration verified cancer.

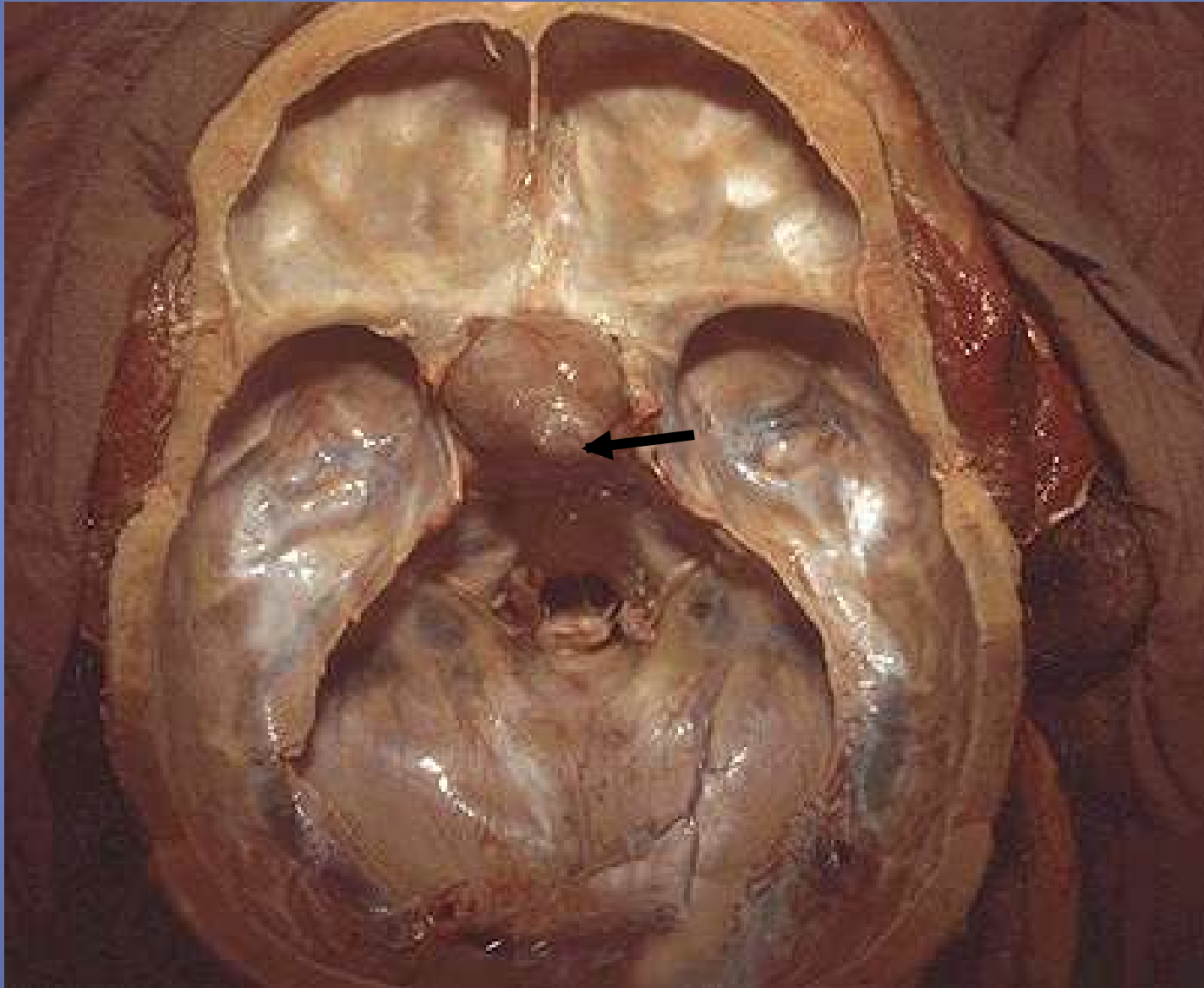


# Inflammatory carcinoma of breast



# Endocrine System Neoplasms

# Pituitary adenoma (benign)



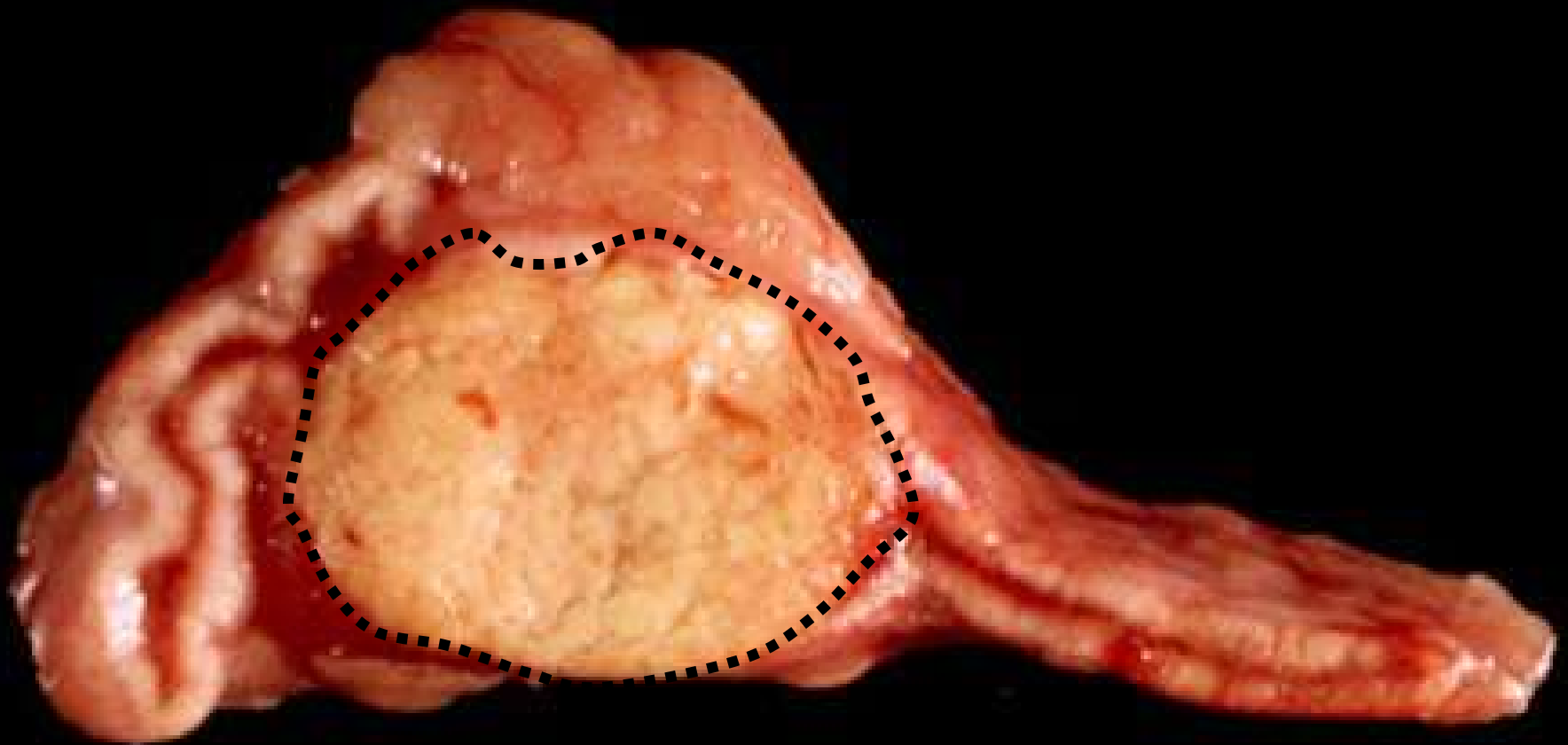
# Normal adrenal glands

Adrenal glands



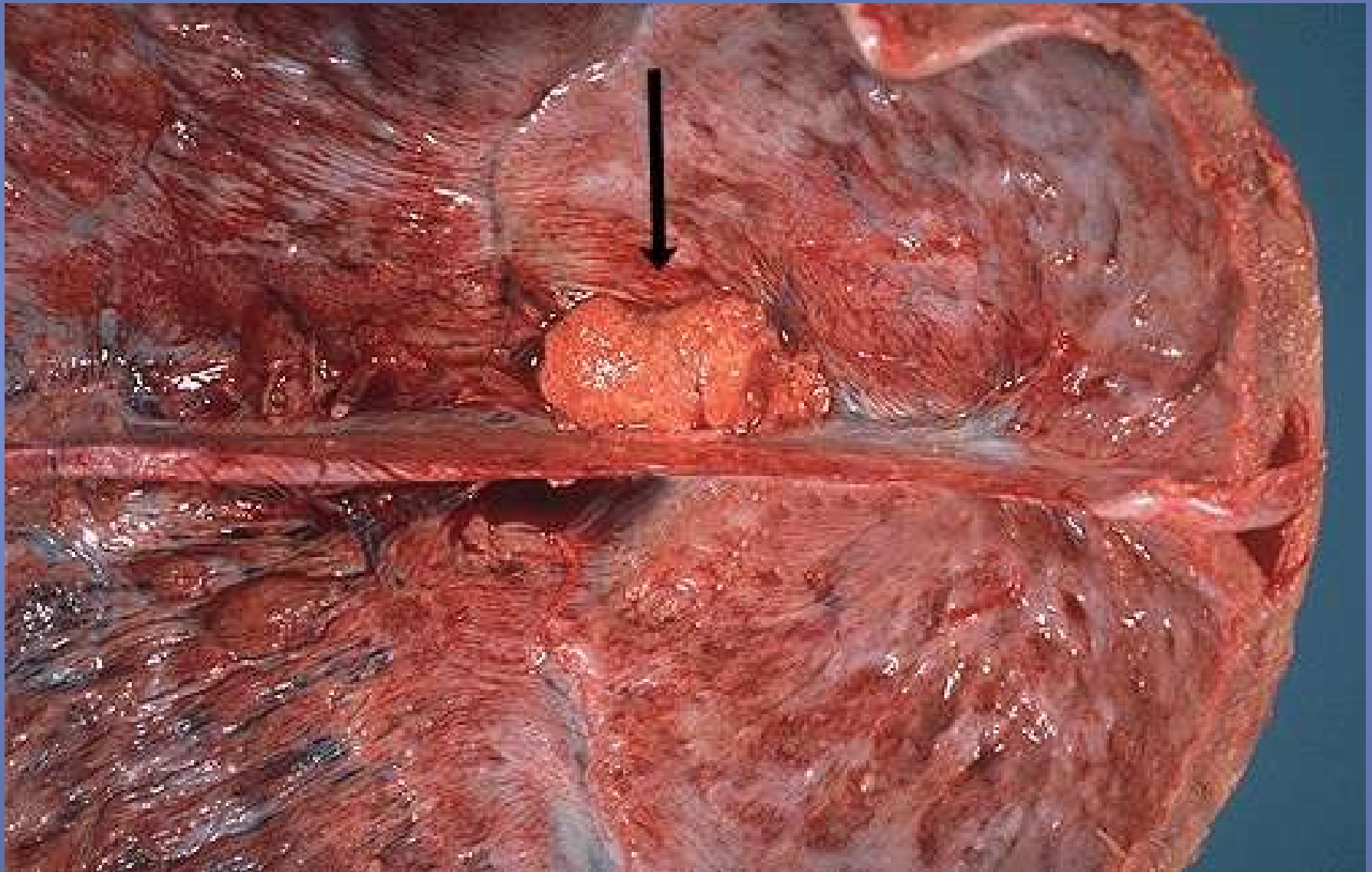
5 cm

# Adrenal adenoma

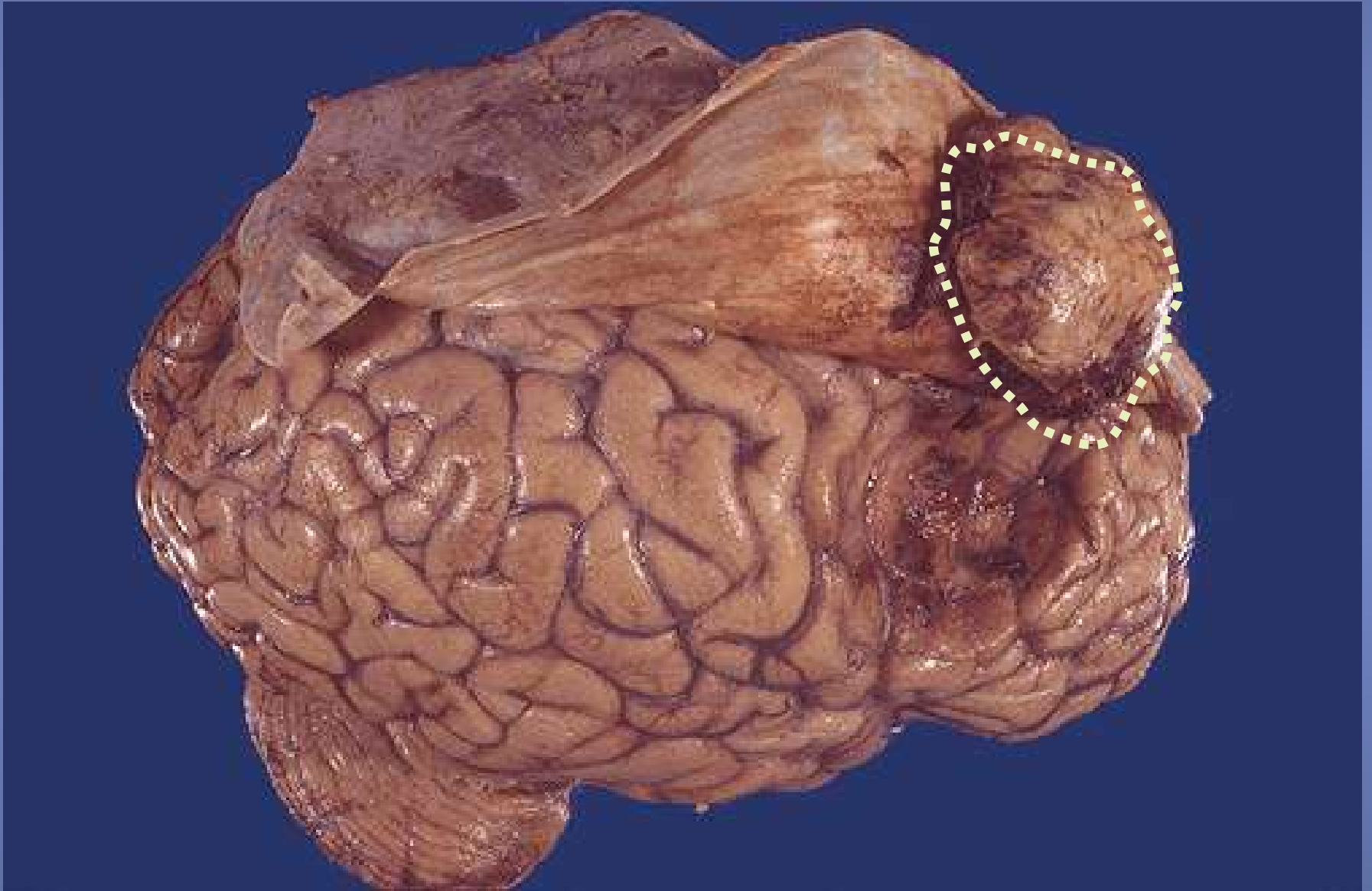


# Nervous System Neoplasms

# Neoplasia beneath dura



# Meningioma

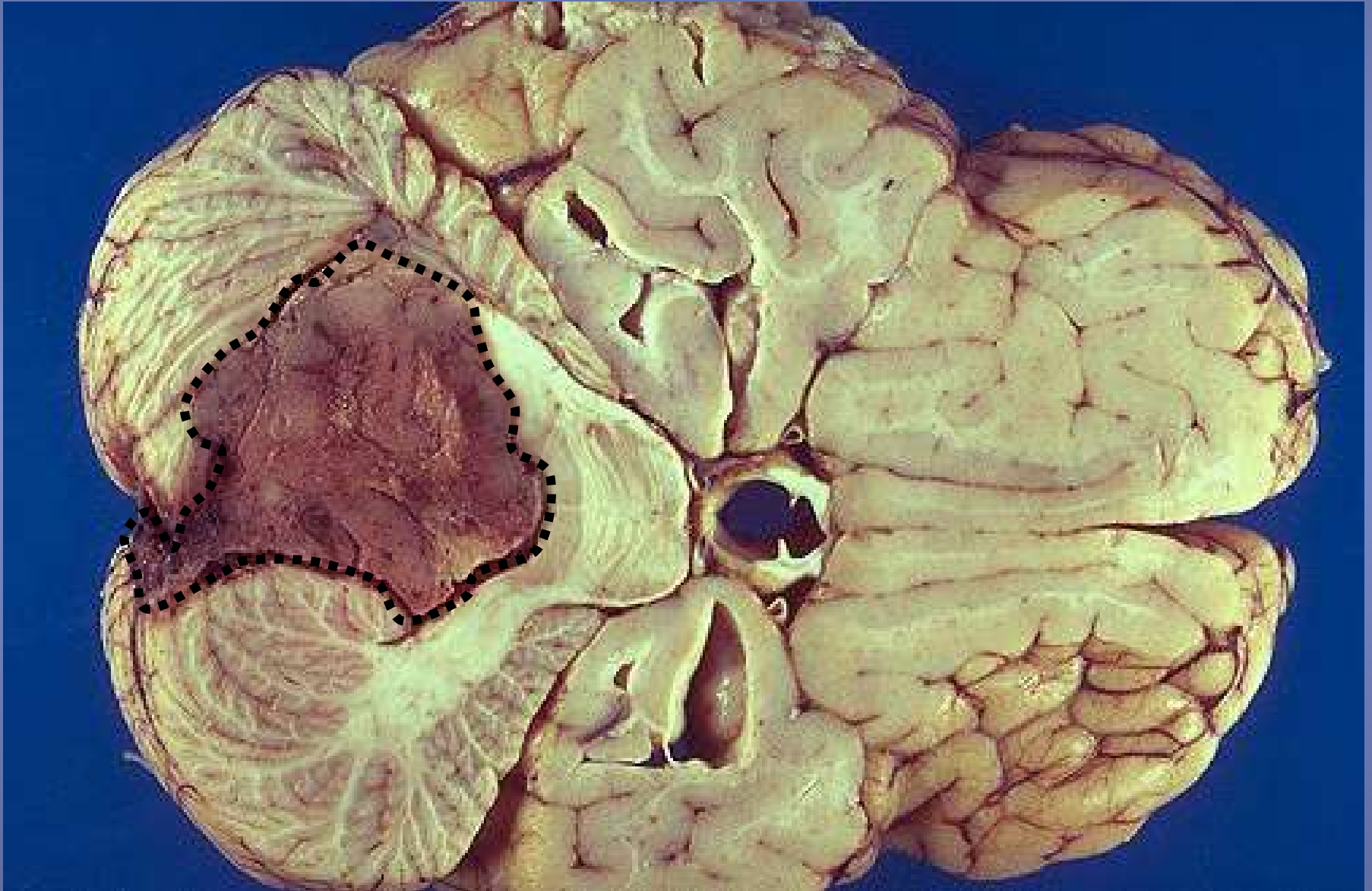




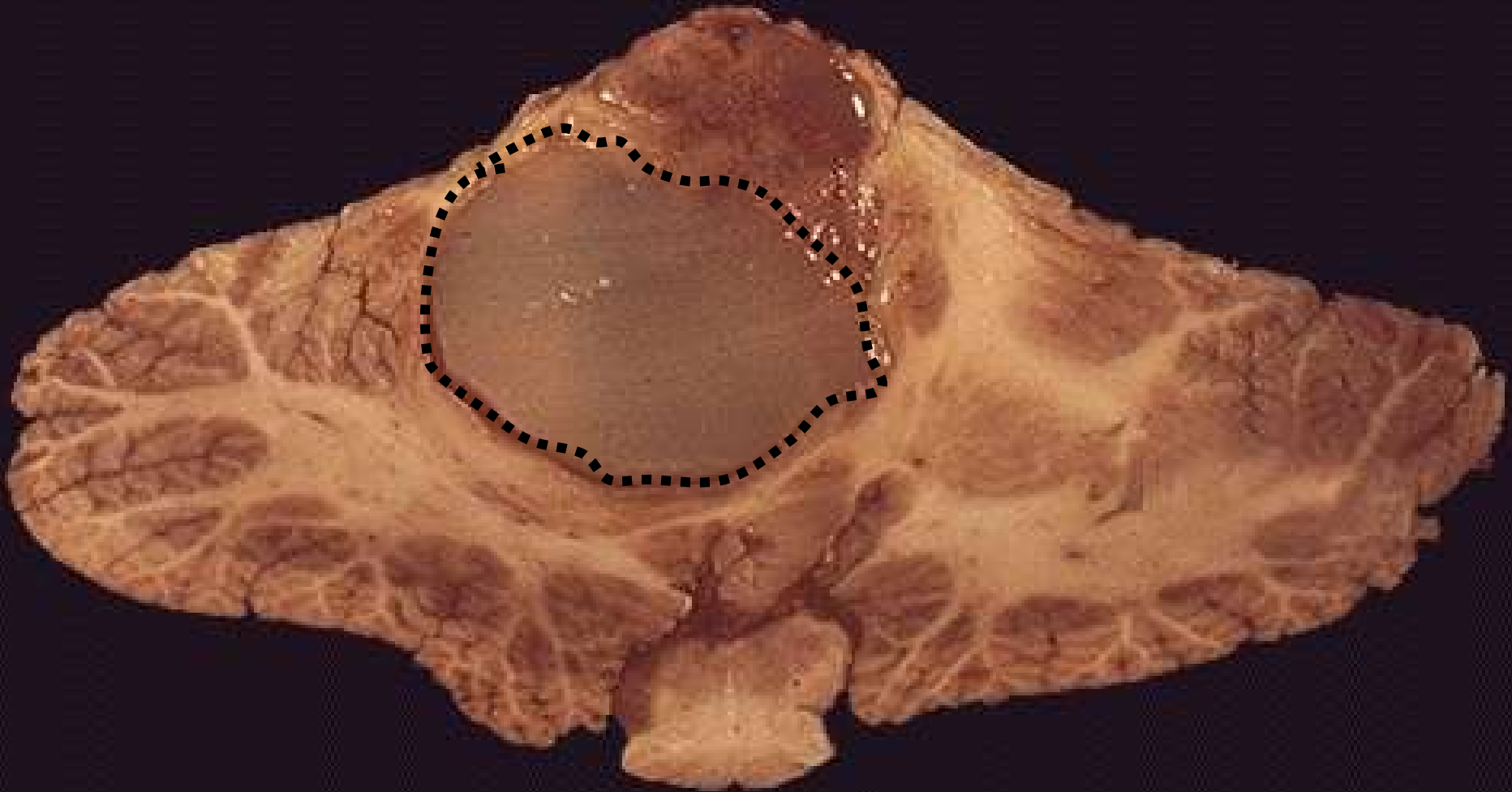
# MRI (meningoma)



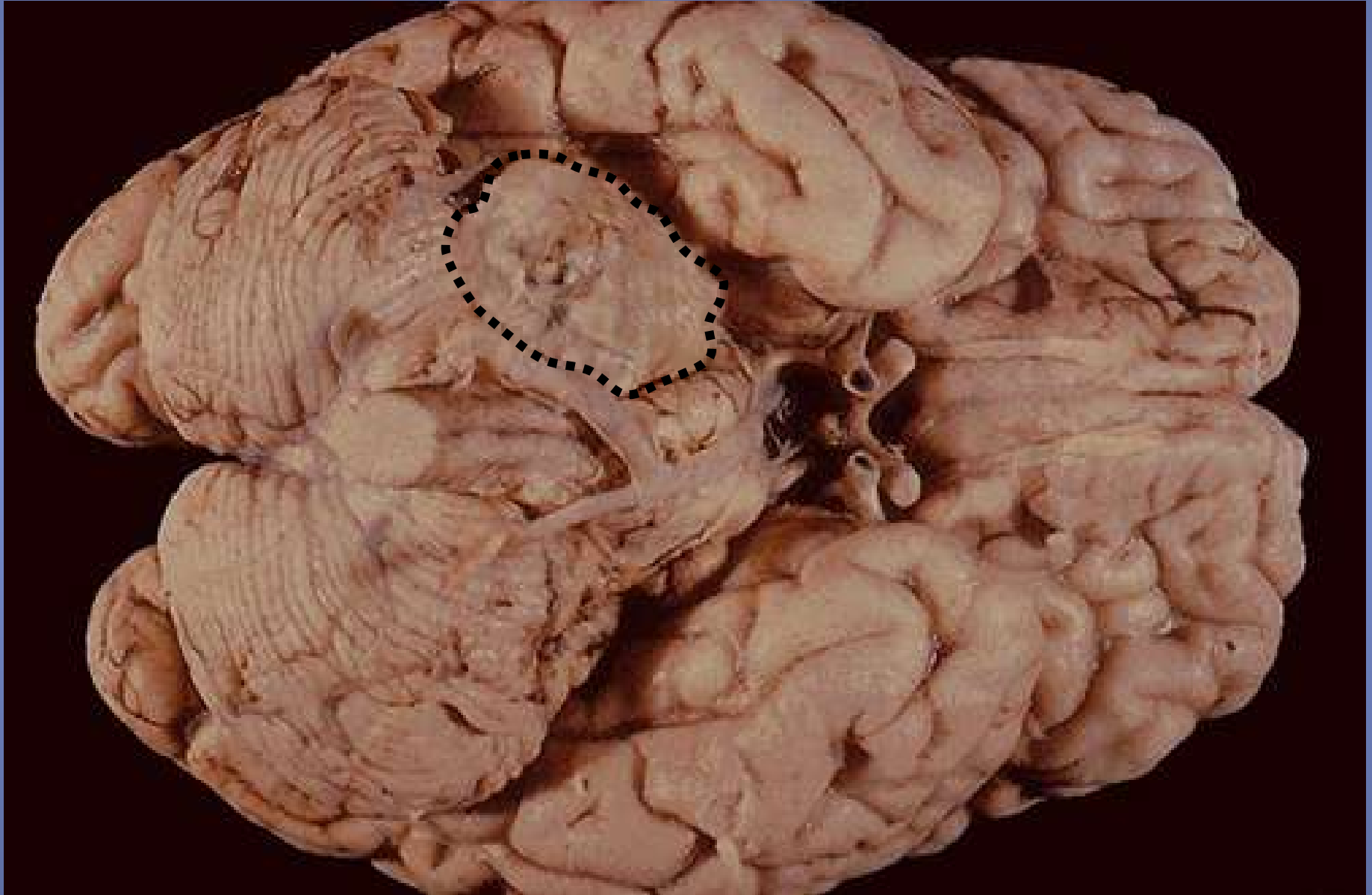
# Ependynoma



# Astrocytoma--child



# Schwannoma (benign)

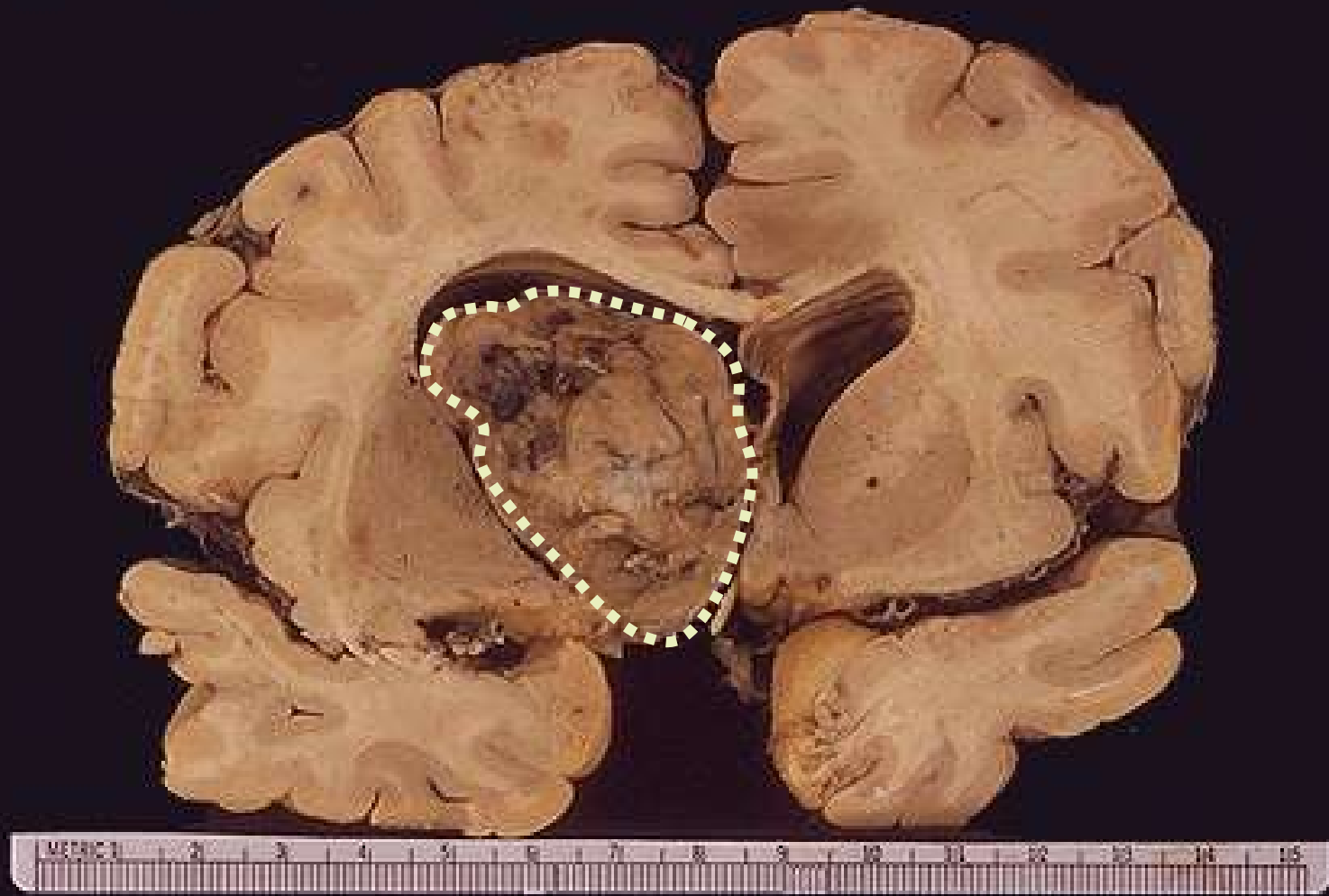


# Schwannoma

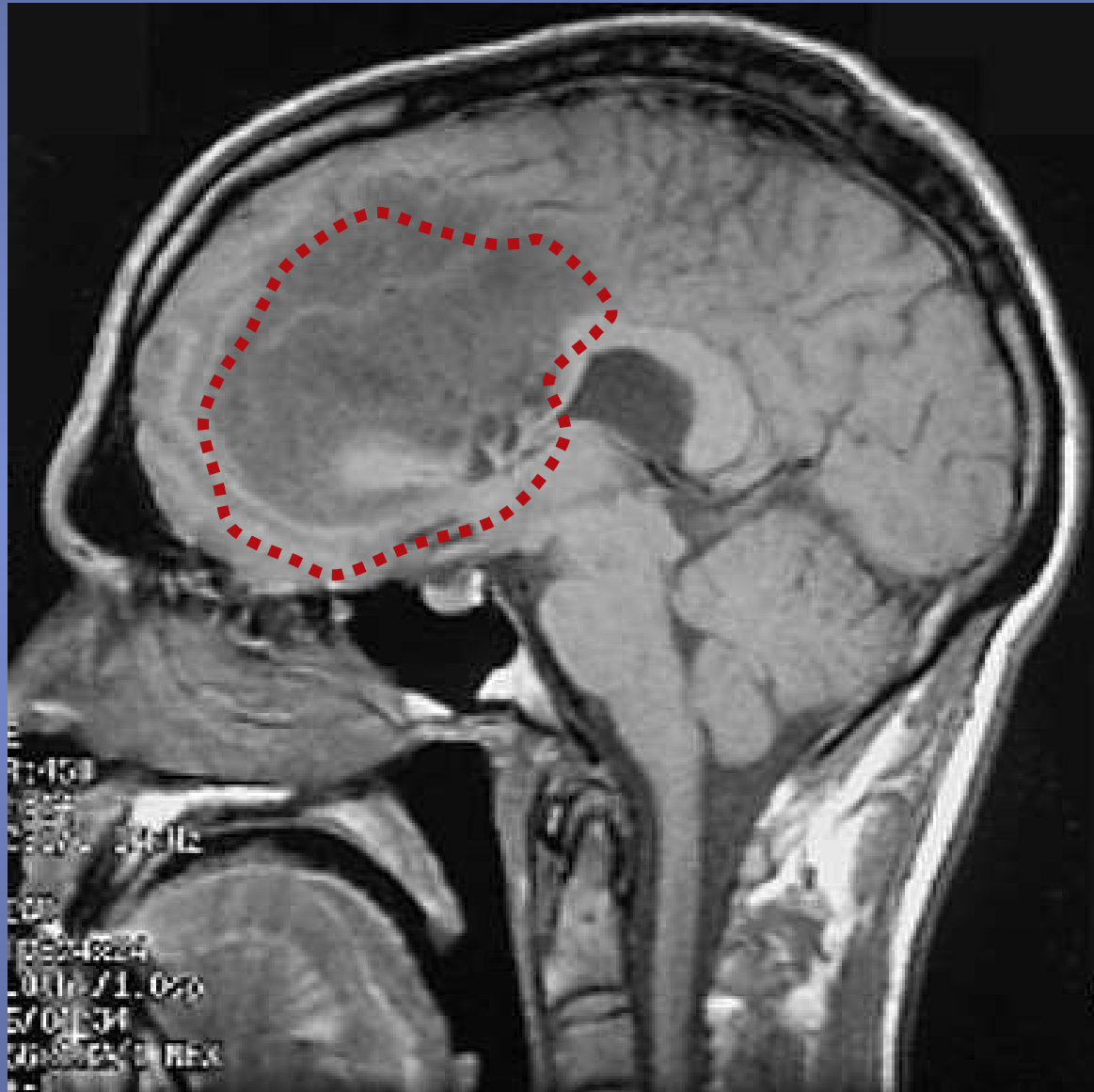
(resected from a nerve--benign)



# Glioma--slice of brain



# Lateral MRI--glioma

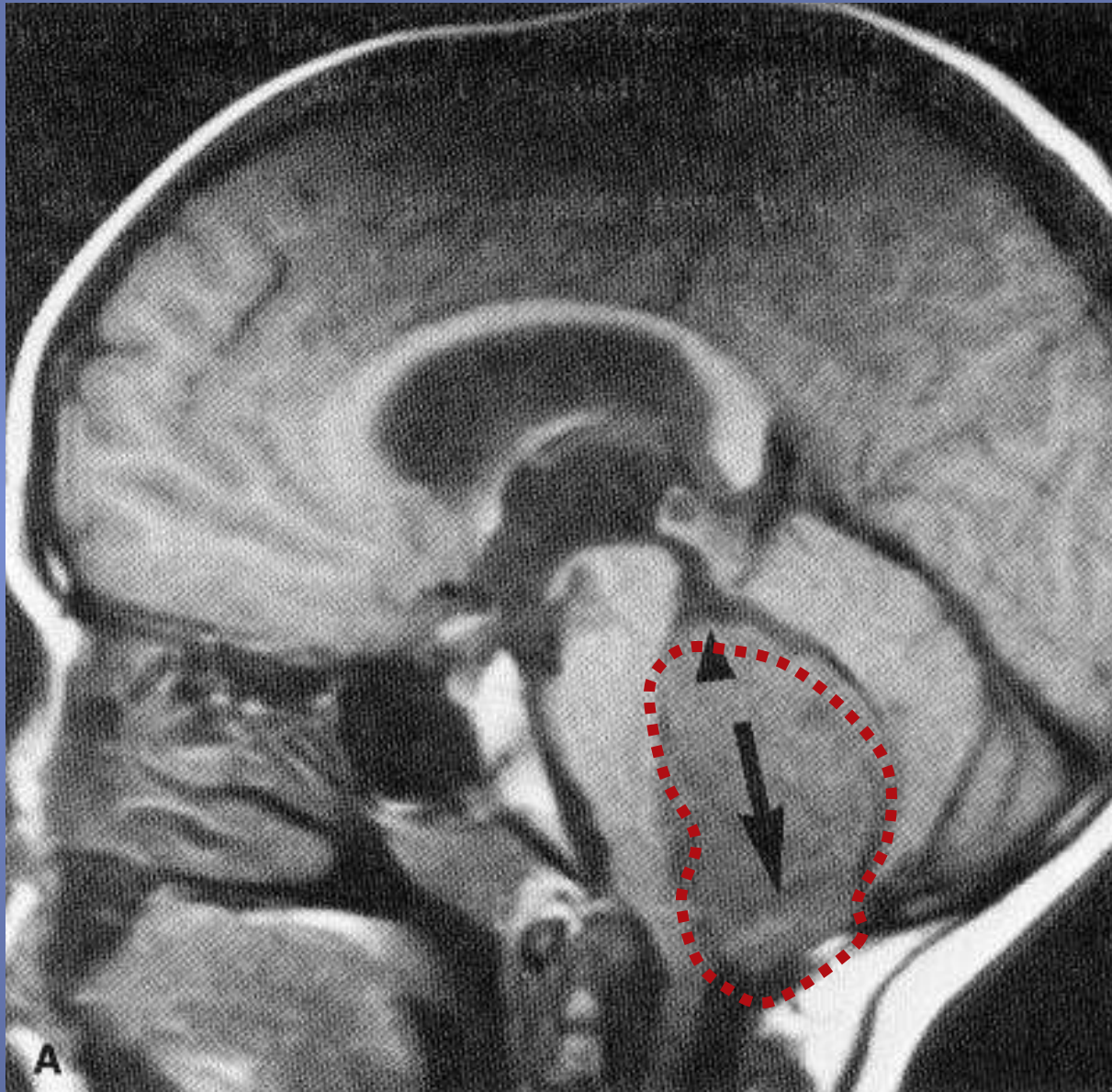


# MRI sagittal--glioma





# Medullary tumor



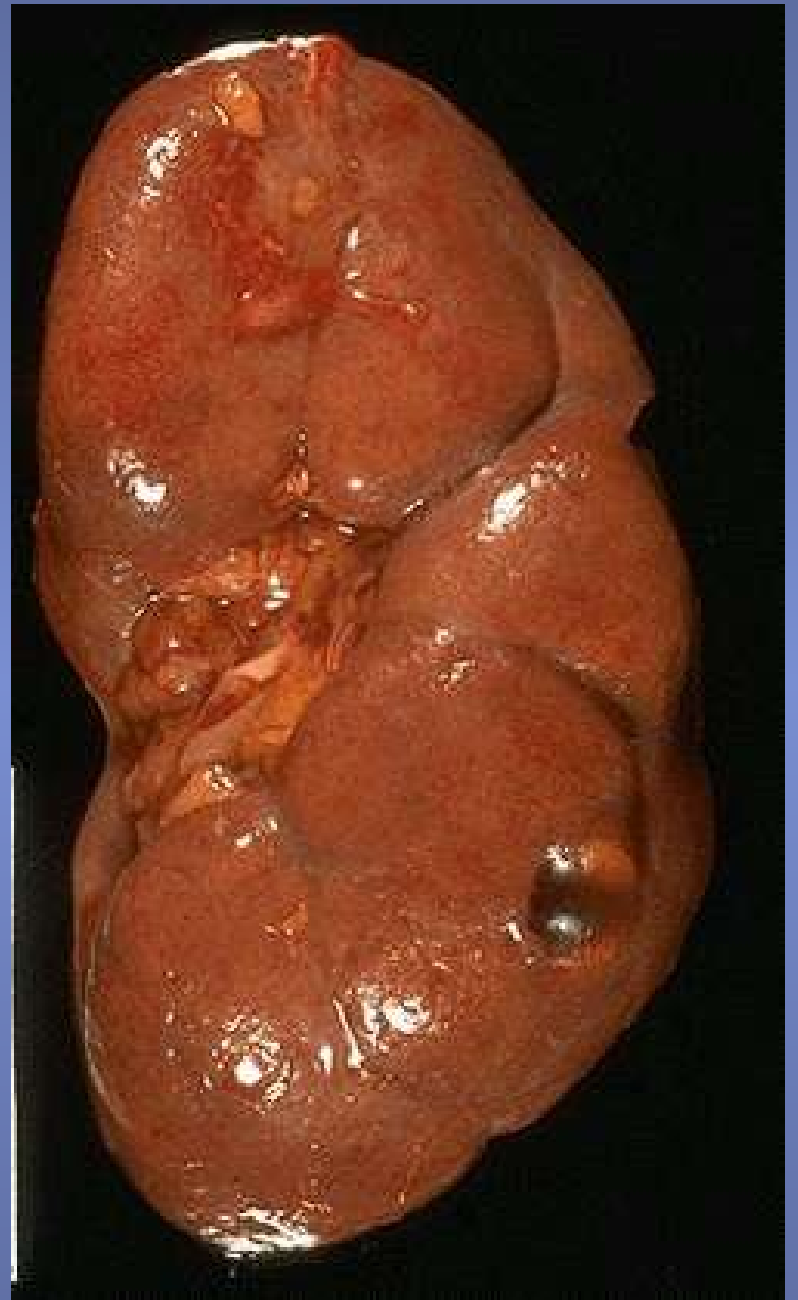
# Retinoblastoma



White tumor occupies back of eye.

# Urinary System Neoplasms

# Normal kidney

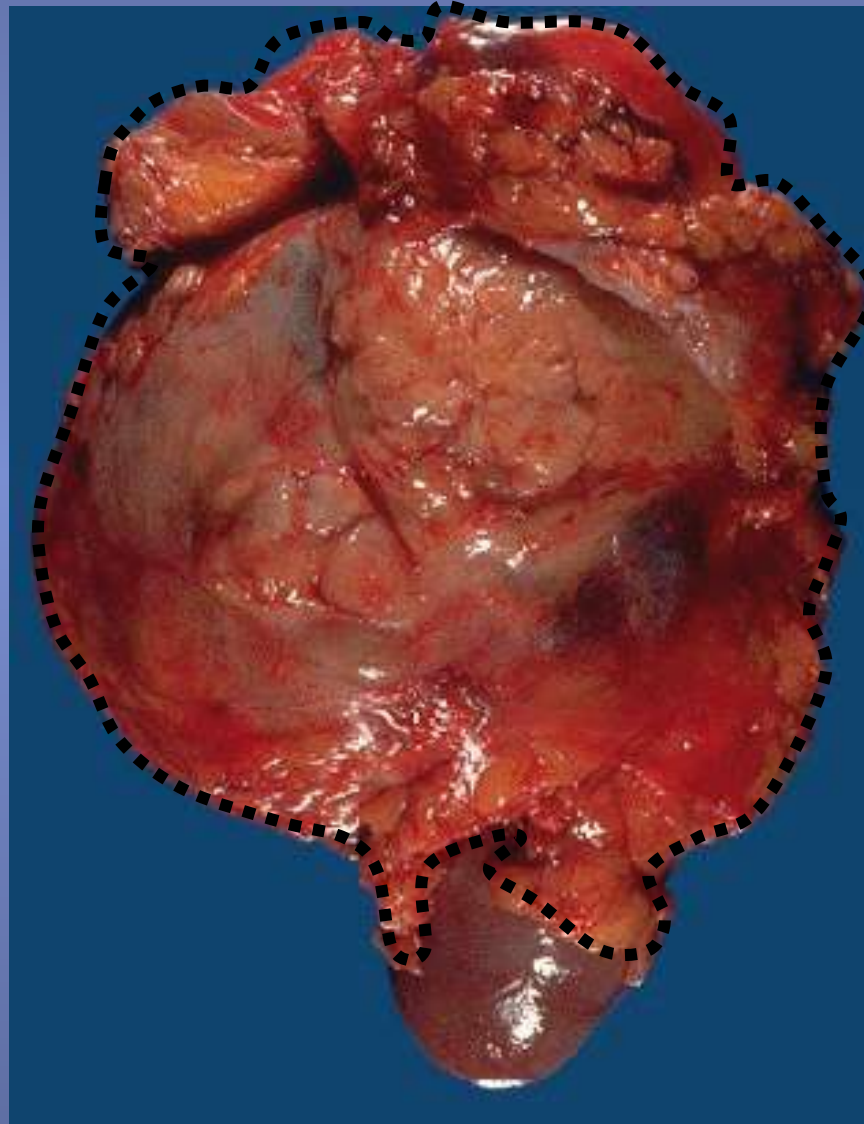


# Renal cyst

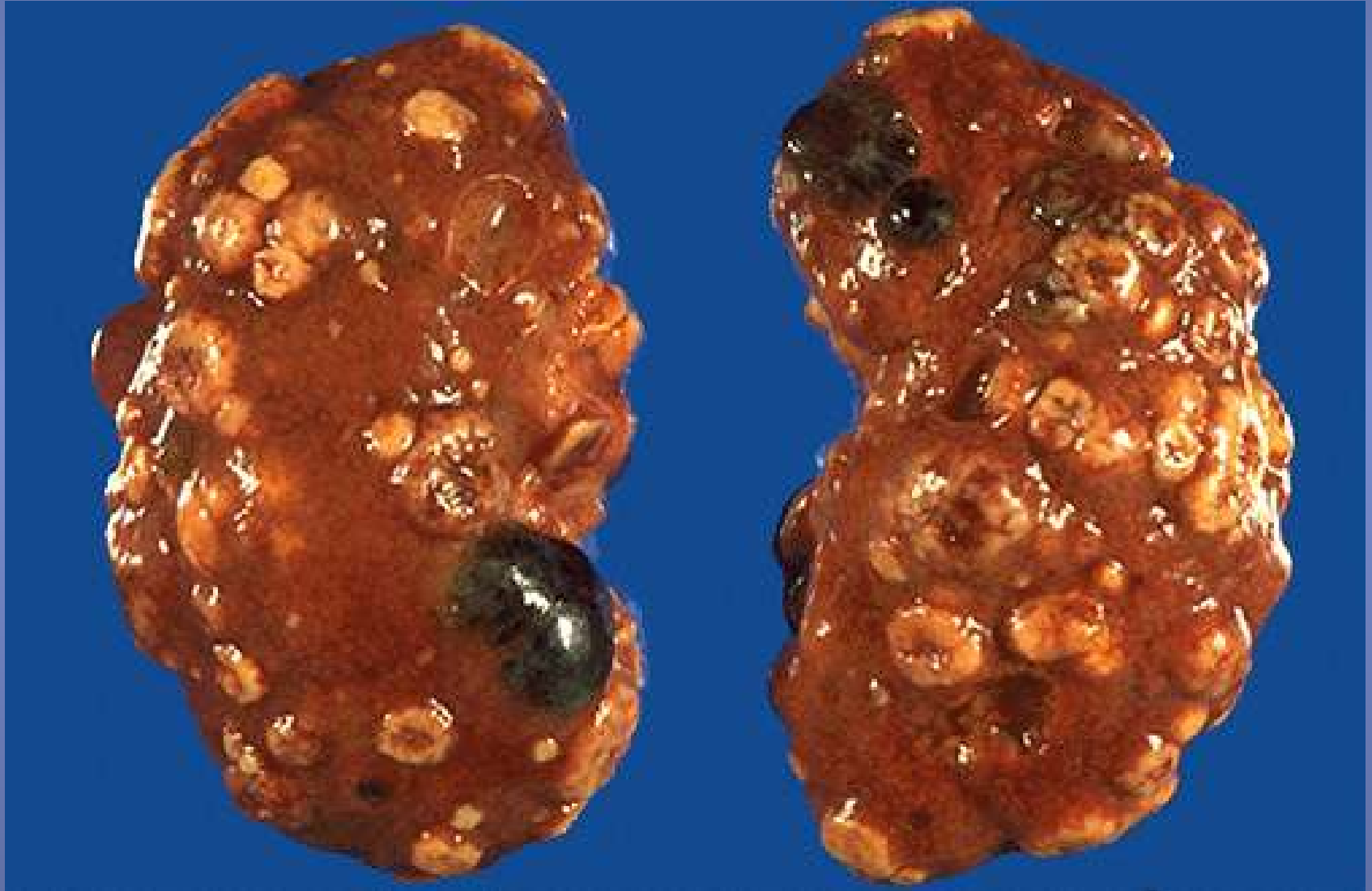




# Large renal carcinoma



# Metastatic lesions (kidneys)

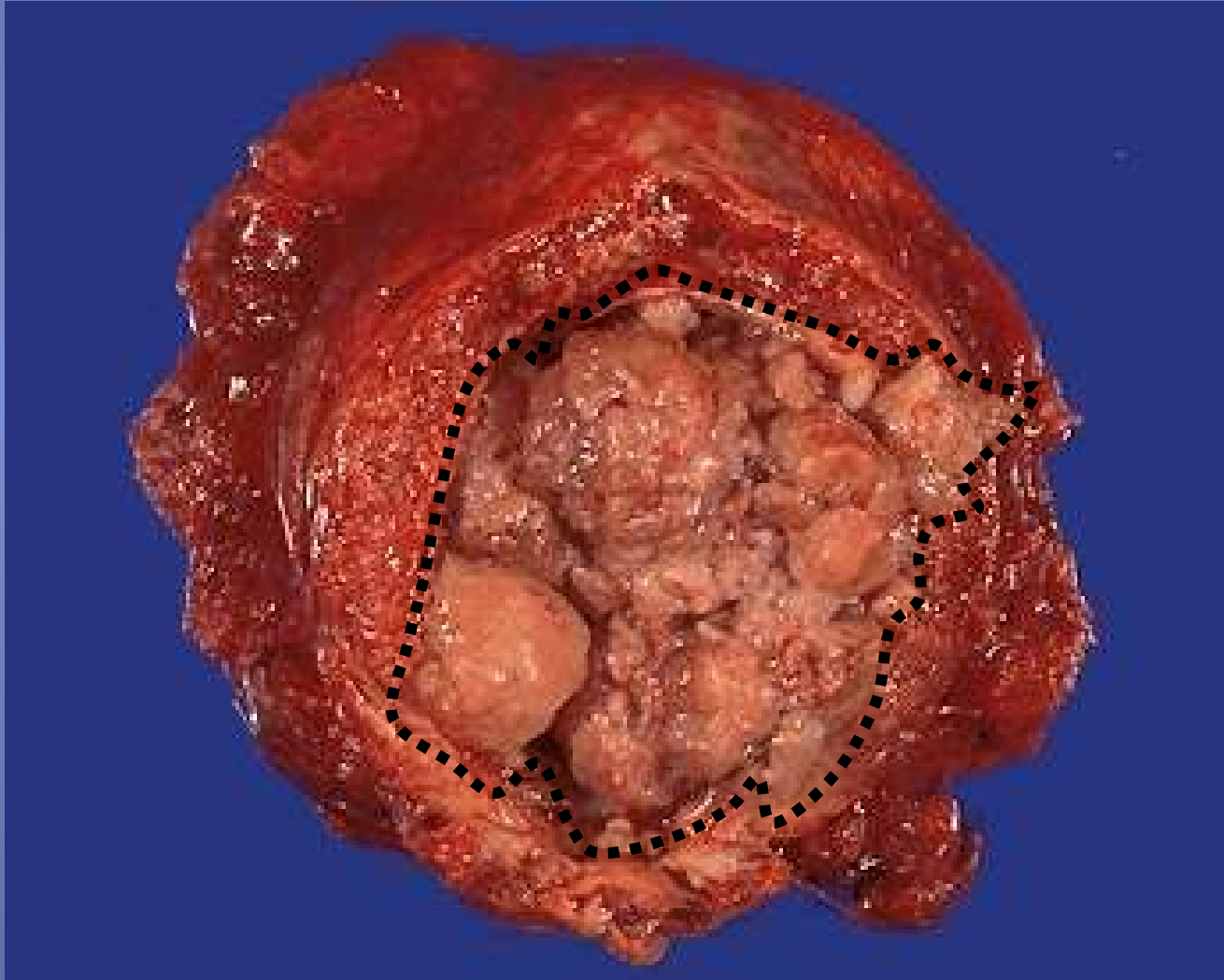


# Wilm's tumor (kidney)





# Transitional cell carcinoma (bladder)



# Skeletal System Neoplasms

# Osteosarcoma



# Osteosarcoma

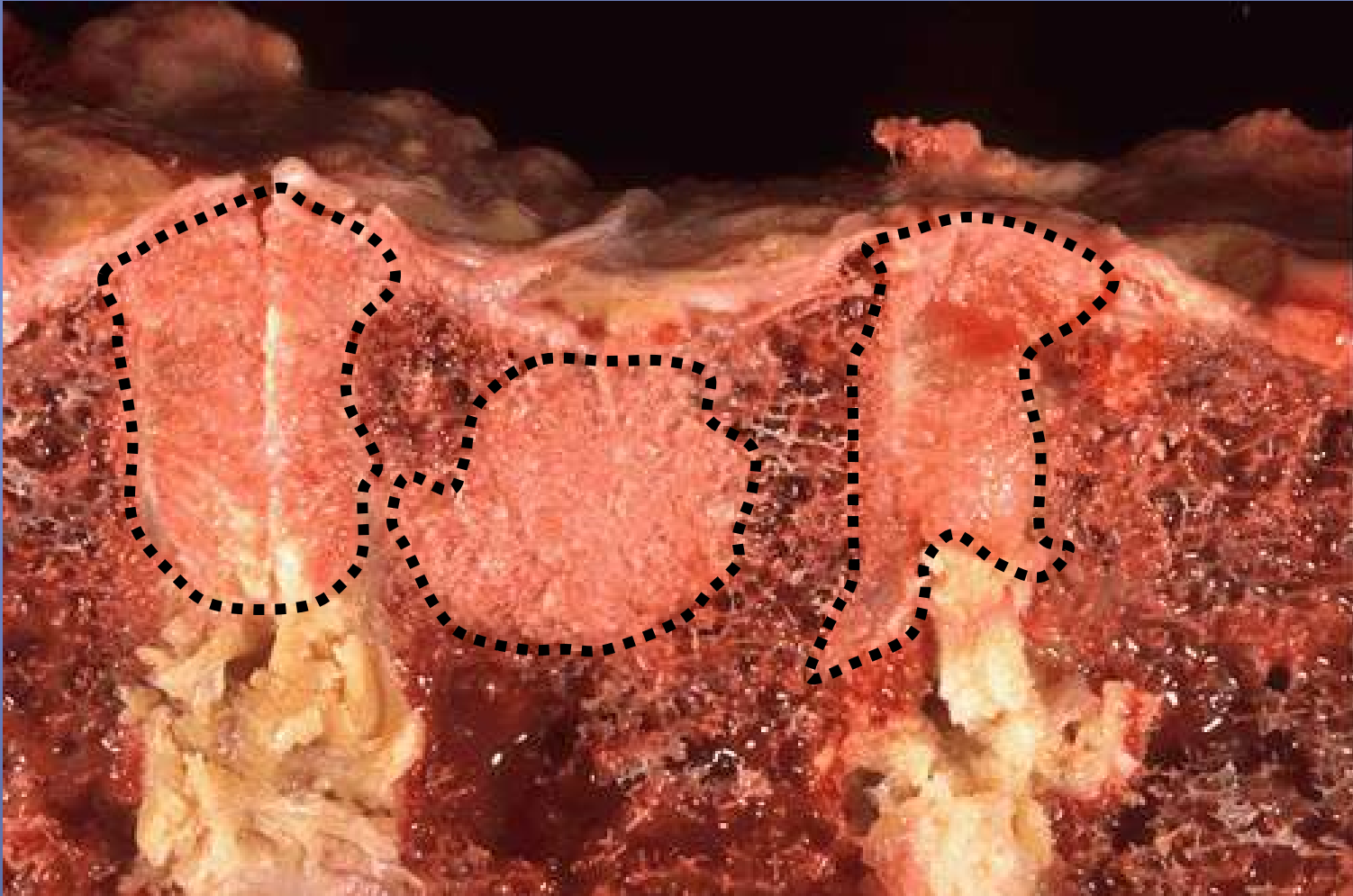
(patient complained pants no longer fit)



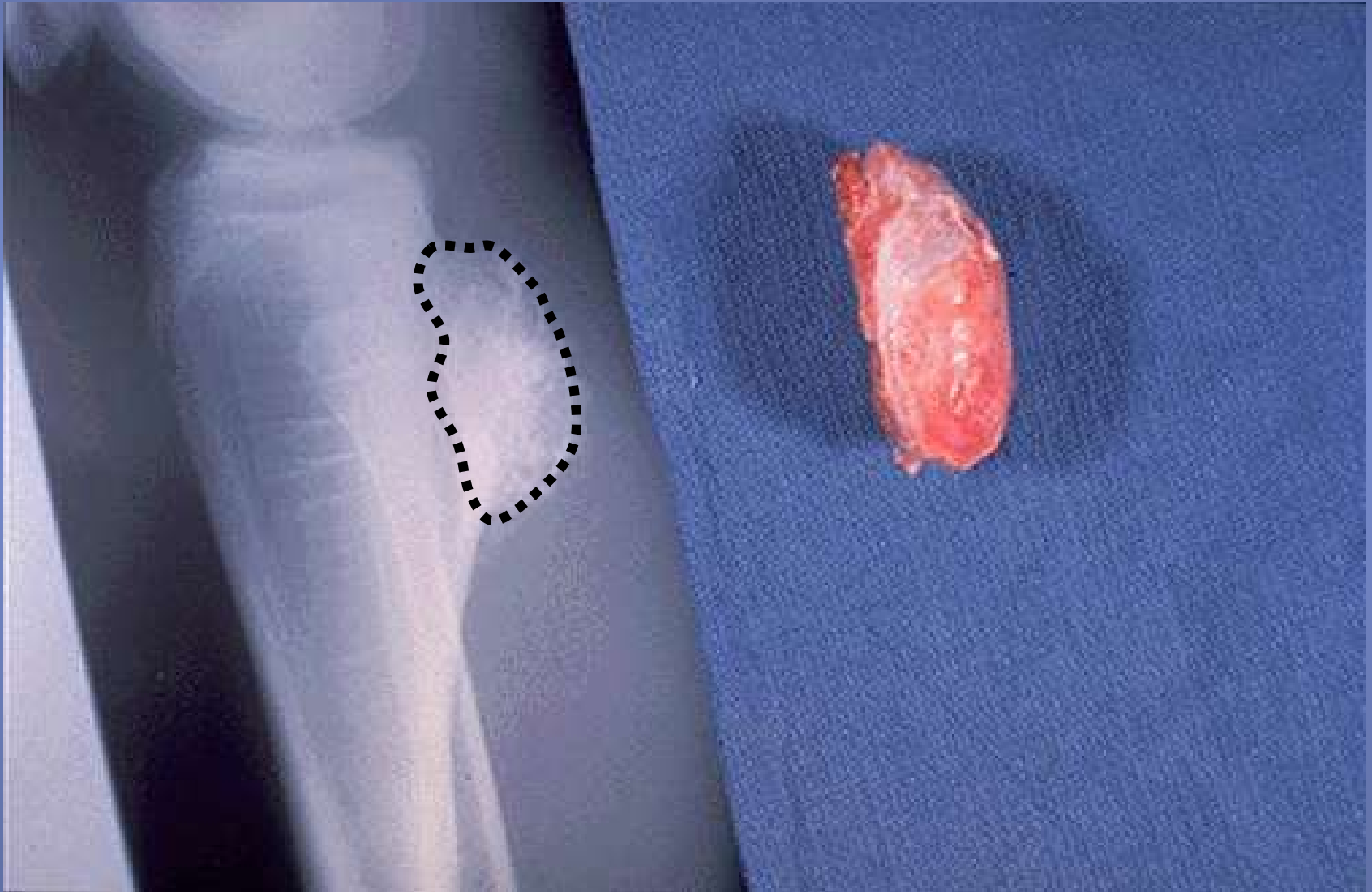
# Ewings Sarcoma



# Bone metastasis (vertebral column)



# Osteochondroma



# Giant cell tumor (proximal femur)



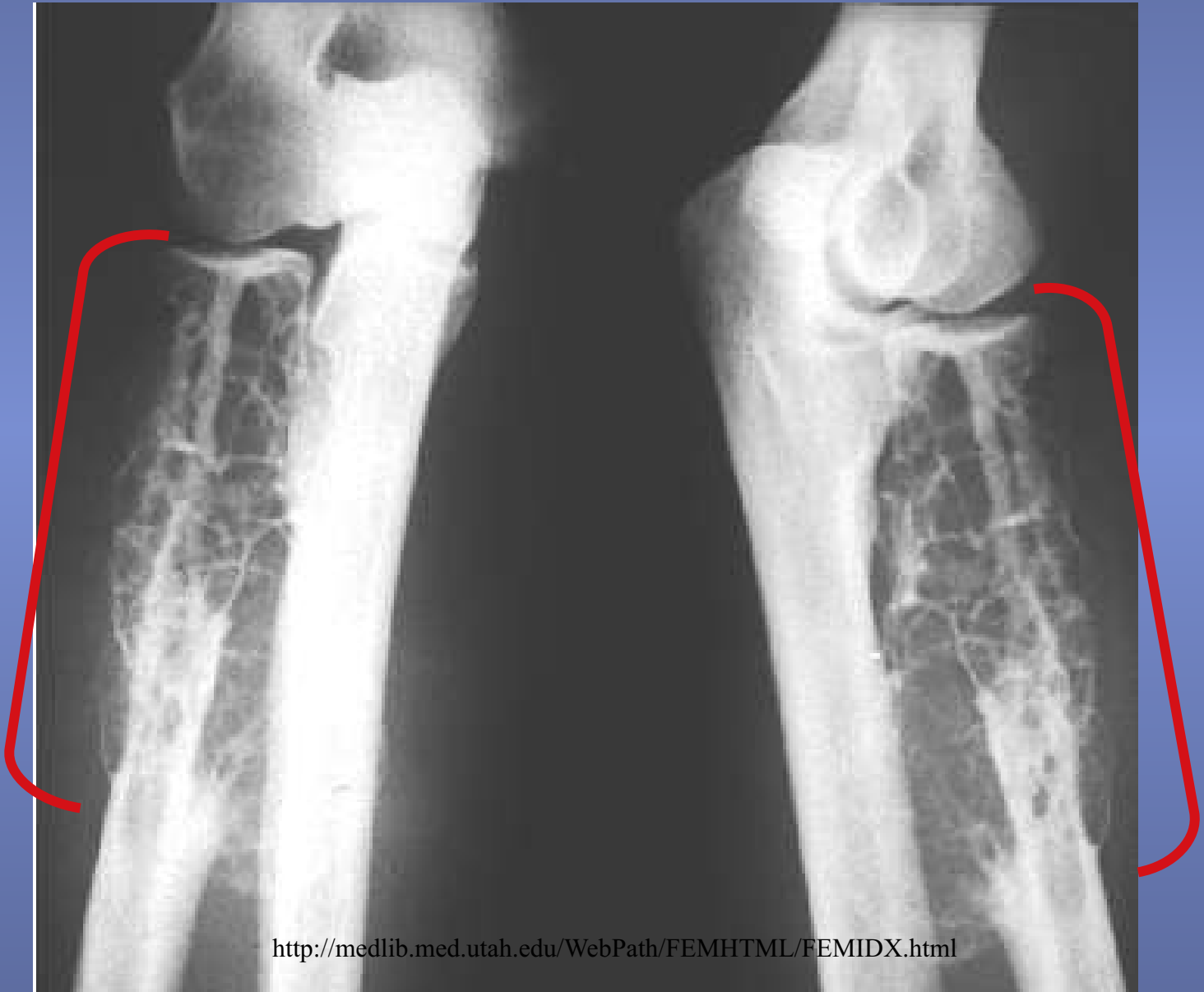


# X-ray: giant cell tumor

Lytic mass involving  
ischium & extending  
into soft tissue



# Metastatic CA--radius



# Benign enchondroma



# Malignant osteosarcoma



# Multiple Myeloma of Skull

