Introduction to Sectional Anatomy

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Additional Slides Provided by Weber Faculty
So Why Do you Need to learn Sectional Anatomy?????

- The more you know, the more marketable you are!!!
- Several modalities use sectional anatomy.

Before these diagnostic modalities emerged, to detect abnormalities and pathological conditions...

The primary option was ..................................

**Exploratory Surgery!!!!**
Imaging Planes of the body

- **Frontal or coronal plane**: dividing the body into anterior and posterior parts.
- **Transverse or axial plane**: dividing the body into upper and lower parts (inferior and superior).
- **Sagittal**: dividing the body into right and left sides.
  - **Parasagittal**: sagittal plane that divides the body into uneven right and left sides.
  - **Median or midsagittal**: plane that divides the body into equal right and left halves.
Scan Planes

- Axial or Transverse plane
- Coronal or Frontal plane
- Midsagittal plane
Scan Planes Cont.
Anterior view of trunk and right upper limb

- Esophagus (food tube)
- Trachea (windpipe)
- Rib
- Left lung
- Heart
- Diaphragm
- Stomach
- Transverse colon
- Small intestine
- Descending colon
- Urinary bladder
- Right lung
- Sternum (breastbone)
- Humerus
- Radius
- Ulna
- Ascending colon
- Liver
- Gallbladder
- Metacarpals
- Carpals
- Phalanges
Look for Symmetry
Chapter 6
Sectional Anatomy of the Neck
ARTERIES

- Basilar
- Right internal and external carotid
- Vertebral
- Right common carotid
- Right subclavian
- Right internal mammary
- Brachiocephalic (Innominate)
- Left internal and external carotid
- Left common carotid
- Left internal mammary
- Left subclavian
- Aortic arch

- Left middle cerebral
- Right internal carotid
- Right superficial temporal
- Right maxillary
- Right facial
- Right common carotid
- Right subclavian
- Right vertebral
- Clavicle
- Brachiocephalic trunk
- First rib
- Right axillary
VEINS

- Superior sagittal sinus
- Inferior sagittal sinus
- Straight sinus
- Right transverse sinus
- Right sigmoid sinus
- Right vertebral
- Right internal jugular
- Right external jugular
- Right subclavian
- Right axillary
- Right cavernous sinus
- Right ophthalmic
- Right superficial temporal
- Right facial
- Right brachiocephalic
Midsagittal Neck

MEDIAN SAGITTAL MR IMAGE

- Pharynx
- Tongue
- Epiglottis
- Trachea
- Left brachiocephalic vein
- Manubrium
- C2 vertebra
- Spinal cord
- Intervertebral disk
- Brachiocephalic artery
- Aortic arch
- Right pulmonary artery
Midsagittal C-Spine

Axial Images of the C-spine

CT Axial Images.... See the Mass?

A. Soft tissue windowing

B. Bone windowing

http://www.amepc.org/qims/article/view/676/731
CT Reformats showing the same mass: Soft-tissue Osteoma
C1(Axis) Vertebral Fracture

http://www.aafp.org/afp/1999/0115/p331.html
Hangman’s Fracture (C2 pedicle fracture)

http://www.aafp.org/afp/1999/0115/p331.html
Coronal MRI Image

What’s the problem here??

https://wiki.uiowa.edu/display/protocols/Case+Example+Deep+Lobe+Parotid+Tumor+Parapharyngeal+Space+Pleomorphic+Adenoma