

ULTRASOUND

Knowledge Based Objectives: The resident should be able to:

1. Discuss thoroughly the ultrasound procedures and findings in:
 - i. Gallbladder/biliary tree ultrasound (cholelithiasis/cholecystitis)
 - ii. Renal ultrasound (obstruction/renal failure/renal artery stenosis)
 - iii. Pelvic ultrasound (ectopic pregnancy)
 - iv. Cranial ultrasound (intracranial hemorrhage-neonatal head ultrasound)
 - v. Duplex Doppler (venous thrombosis of extremities/arterial disease extremities)
2. Discuss the basic ultrasound physics and instrumentation, especially related to equipment operation and the specifications for various probes.
3. Describe, from observation, the technique used to perform each of the routinely performed procedures.
4. Demonstrate thorough knowledge of the ultrasound procedure through performing or assisting the sonographer with performance of the following
Studies:
 - i. Liver/biliary tree (biliary obstruction/tumors)
 - ii. Pancreas (acute and chronic inflammatory process/tumors)
 - iii. Renal (transplant rejection/Doppler, tumors and inflammatory processes)
 - iv. Pelvis (uterine leiomyoma/ovarian neoplastic and non-neoplastic diseases)
 - v. Cranial ultrasound (hydrocephalus/cerebral ischemia and infarction)
 - vi. Duplex Doppler (duplex sonography of carotids and abdominal duplex)
5. Given the appropriate sonograms, identify and discuss significant characteristics of the pathologies listed in #1 above.
6. Discuss all aspects of ultrasound imaging, including indications, pathology, and correlative studies used for each examination.

Technical Skills: The resident should be able to:

1. Review histories of patients to be examined each day to determine the relevance of the study to clinical symptoms.
2. Record a pertinent history of the patient on the ultrasound worksheet.
3. Advise the technologist about special views or specific parameters of the study that require special attention.
4. Assist with the preparation and presentation of a noon ultrasound conference.
5. Review all scans as they are performed for significant findings that require prompt attention.
6. Assist with preparation/presentation of cases for an ultrasound/imaging conference.
7. Review and dictate with attending radiologist all scans performed.

Decision-Making and Value Judgment Skills: The resident should be able to:

1. Given an ultrasound case, make a preliminary review of the images and advise the technologists when additional views or repeat views are needed.
2. Make decisions in regard to notification of the referring physician if attending radiologist is not available for consultation.
3. Read and/or dictate images under the supervision of attending radiologist.

Make preliminary decisions on all matters of image interpretation and consultation and recognize the need to obtain immediate assistance in situations that require the expertise the attending radiologist.