DMS A274: ABDOMINAL SONOGRAPHY

Item	Value
Curriculum Committee Approval Date	12/02/2020
Top Code	122700 - Diagnostic Medical Sonography
Units	3 Total Units
Hours	54 Total Hours (Lecture Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	Yes
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

Interpretation of normal and abnormal sonographic anatomy, comparing disease processes and identification of structures in sonographic images of the abdomen and superficial structures. PREREQUISITE: DMS A165. COREQUISITE: DMS A271. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Integrate and analyze knowledge of abdominal sonography and superficial structures and differentiate between normal and abnormal sonographic findings.

Course Objectives

- 1. Identify and describe abdominal and superficial structures sonographically
- 2. Discuss and apply scan planes and sonographic protocols for the abdomen and superficial structures including appropriate measurements.
- 3. Write a technical abstract for a case study.
- 4. Demonstrate knowledge of normal and abnormal sonographic findings of the abdomen
- 5. Demonstrate knowledge of normal and abnormal sonographic findings of superficial structures.
- 6. Discuss sonographic anatomy of the neonatal brain and recognize intracranial bleeds in the neonatal brain.
- 7. Apply Doppler principles to structures and pathology when indicated.
- 8. Discuss differential diagnosis when assessing pathology.
- 9. Discuss the use of other imaging modalities in conjunction with sonography.
- 10. Discuss and understand the use of sonography in procedures, detection of foreign body objects and musculoskeletal (MSK) evaluation.
- 11. Describe and understand sonographic applications to pediatric hips and spine.

Lecture Content

The Liver Cross-sectional anatomical review Sonographic appearance Size Texture Disease processes Benign Malignant Doppler use Protocols Sonographic Differential Other imaging modalities The Gallbladder and Biliary Tree Cross-sectional anatomical review Sonographic appearance Size Texture Disease processes Benign Malignant Doppler use Protocols Sonographic Differential Other imaging modalities The Pancreas Cross-sectional anatomical review Sonographic appearance Size Texture Disease processes Benign Malignant Doppler use Protocols Sonographic Differential Other imaging modalities The Spleen and Retroperitoneum Cross-sectional anatomical review Sonographic appearance Size Texture Disease processes Benign Malignant Doppler use Protocols Sonographic Differential Other imaging modalities Abdominal Vasculature Cross-sectional anatomical review Sonographic appearance Size Texture Disease processes Benign Malignant Doppler use Protocols Sonographic Differential Other imaging modalities The Kidneys, Bladder, prostate and Adrenal Glands Cross-sectional anatomical review Sonographic appearance Size Texture Disease processes i >Benign Malignant Doppler use Protocols Sonographic Differential Other imaging modalities Superficial Structures Thyroid and Parathyroid Scrotum Neonatal brain Breast Cross-sectional anatomical review Sonographic appearance Size Texture Disease processes Benign Malignant Doppler use Protocols Sonographic Differential Other imaging modalities Misc. Topics MSK Sonographic-guided procedures Pediatric Hip Foreign body object assessment i

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)

Instructional Techniques

Lecture, printed handouts, video, PowerPoint presentations and Class discussions.

Reading Assignments

It is recommended that students read 4 hours per week from the assigned text.

Writing Assignments

Students are required to write an abstract for a case study. In addition, students have to describe in writing sonographic images. This will require 1 hour per week/8-10 weeks.

Out-of-class Assignments

Students will begin to work on an abstract for a case study that is due in the following semester. This will require 1 hour per week/8-10 weeks.

Demonstration of Critical Thinking

Objective examinations Demonstration of critical thinking through class participation and the ability to describe sonographic images. Writing skill evaluation and final examination

Required Writing, Problem Solving, Skills Demonstration

Abstract of case report.

Eligible Disciplines

Diagnostic medical technology-diagnostic medical sonography, neurodiagnosti...: Any bachelors degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Kawamura, D. Dr, Lunsford, B. Diagnostic Medical Sonography, 3d ed. LWW, 2017