

CAR 2022 ASM Educational Exhibits – 1st Place Winner

Abstract # PROT74VT4KW

Dual Energy CT Iodine Maps Improve Detection of Anastomotic Leaks, Visceral Perforations and Fistula

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LEARNING OBJECTIVES:

1. Highlight the value of Dual Energy CT (DECT) in clinical practice.
2. Understand the principles of DECT and the iodine overlay map.
3. Illustrate how iodine overlay maps can improve diagnostic confidence and sensitivity in the detection of gastrointestinal leaks, visceral perforations and fistulae.

BACKGROUND: DECT iodine overlay maps are widely used to improve diagnostic confidence of neoplastic, vascular, infectious and inflammatory abdominopelvic disorders. GI perforations, anastomotic leaks and fistulae are challenging entities requiring a prompt diagnosis often involving multiple imaging modalities for assessment. Herein, we illustrate a novel use of the iodine overlay map. When DECT iodine maps are acquired with iodinated oral contrast, they improve detection of extraluminal spillage of iodinated oral contrast in the setting of enteric leaks and perforations.

CONCLUSION: When used in conjunction with iodinated oral contrast, DECT Iodine overlay maps can improve confidence and sensitivity in the assessment of GI perforations, anastomotic leaks and fistulae.

CAR 2022 ASM Educational Exhibits – 2nd Place Winner

Abstract # PROYPQDVFE8

Pattern-Based Approach to Diffuse Lung Disease

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LEARNING OBJECTIVES:

1. Develop an approach to diffuse lung disease based on the most common CT patterns.
2. Offer a differential diagnosis for the most commonly encountered entities in each pattern category.
3. Review and understand the appropriate terminology used in thoracic imaging as per the Fleischner Society glossary of terms.

BACKGROUND: Diffuse lung diseases comprise a group encompassing over 100 entities. Although this topic can be overwhelming, several approaches have been developed to help readers recognize the various presentations of common diseases and typical presentations of less common entities. This review offers a simplified, yet comprehensive, step-by-step algorithmic approach to diffuse lung diseases based on four common patterns: interstitial lung disease, nodular lung disease, focal or diffuse decreased lung attenuation, and focal or diffuse increased lung attenuation. It also integrates a pictorial review of important terms unique to thoracic imaging to ensure precise use of terminology and accurate description of findings.

CONCLUSION: Recognizing the most common patterns of diffuse lung disease, precisely describing pertinent findings and developing an approach to identify common and uncommon entities will help trainees and non-chest radiologists to offer a relevant differential diagnosis and facilitate prompt referral.

CAR 2022 ASM Educational Exhibits – 3rd Place Winner

Abstract # PRO9FTDCQYN

An Approach to Acute Traumatic and Non-Traumatic Diaphragmatic Abnormalities

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LEARNING OBJECTIVES:

1. Review the anatomy of the diaphragm and its normal variation.
2. Discuss the incidence, clinical presentation, and pathophysiology of common and uncommon acute diaphragmatic abnormalities.
3. Present the radiologic findings and differential diagnosis of acute diaphragmatic abnormalities.
4. Overview the general management of acute diaphragmatic abnormalities in the emergency setting.

BACKGROUND: Acute traumatic and non-traumatic diaphragmatic abnormalities are a heterogeneous group of relatively uncommon pathologies affecting the normal structure and function of the diaphragm. These include diaphragmatic hernias, laceration, traumatic and spontaneous ruptures, thoracoabdominal fistulae, infections, and endometriosis. Because the diaphragm is the primary inspiratory muscle, disruption to its integrity can cause clinically significant consequences. Imaging plays an essential role in investigation. Therefore, understanding the anatomy and characteristic radiologic findings is needed for efficient and accurate diagnosis and management.

CONCLUSION: The proposed underlying process might be related to breast implant capsular micro fractures.