

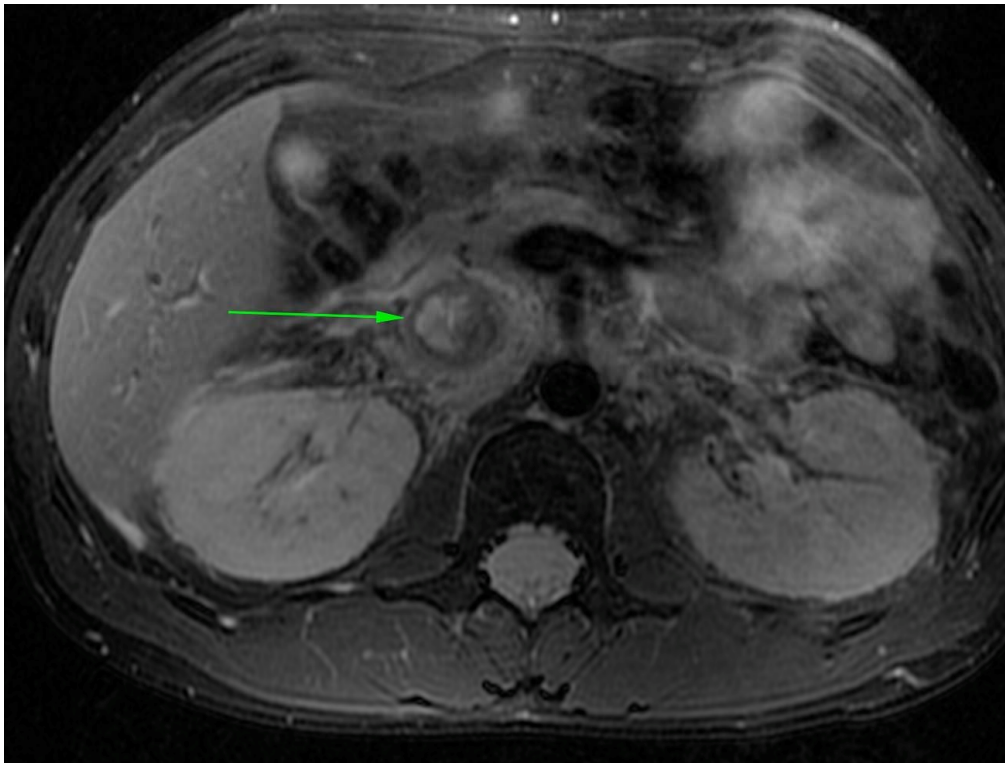
MRI in the Emergency Room : MRV

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This presentation will focus on MR venography. Topics covered will include both principles of image acquisition and interpretation.

First, methods of optimizing the MR venography for assessment of venous thrombosis, particularly in an emergency setting, will be discussed, addressing four questions. The first question is which contrast agent to choose. Most MR imaging can be performed with standard extracellular gadolinium agents. However, there are some advantages and disadvantages of blood pool agents that will be discussed. Next, situations when pre-contrast or non-contrast imaging is necessary are covered. Mostly, these sequences are only necessary in situations where the technical quality of post-contrast imaging is in doubt. Third, approaches to fat suppression will be covered. The benefits and disadvantages of two-point Dixon methods compared with subtraction and spectrally selective suppression will be reviewed. Finally, MR imaging in the presence of venous stents will be covered, including sequence modifications that enable visualization within the stents.

Principles of interpretation will also be reviewed. In particular, features suggestive of acute thrombosis versus chronic thrombosis will be assessed. Additionally, assessment of predisposing anatomy and evaluation of associated venous anomalies will be covered.



MRI provides multiple windows into venous pathology in an emergency setting. Though contrast enhanced imaging is most commonly used, in this patient with abdominal pain, axial T2 shows thick-walled inferior vena cava with thrombus.

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