Sarcoidosis

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**Indications and Purpose of the Scan**

- Sarcoidosis is a systemic inflammatory disease that typically affects the lungs and lymph nodes. Occasionally, sarcoidosis can also affect the heart possibly leading to arrhythmias and heart failure. While electrocardiograms, echocardiography, and endomyocardial biopsy are standard diagnostic tests for sarcoidosis, cardiac MRI has the advantage of non-invasively assessing the entire myocardium for evidence of the disease.

**Why CMR (specific advantages for this topic)**

- CMR is able to confirm cardiac involvement, assess degree of inflammatory activity and assess response to treatment, and follow left ventricular function.

**Evidence Examples from the Literature**

  - This study analysed the accuracy of CMR in the diagnosis of cardiac sarcoidosis. 58 patients with biopsy proven pulmonary sarcoidosis underwent CMR. Sensitivity was reported to be 100% while specificity was 78%. The positive and negative predictive values were calculated to be 55% and 100% respectively with an overall accuracy of 83%.
  - This study demonstrated that late gadolinium enhancement is an independent predictor of potentially lethal events.

**Contraindications**

- Any implanted device that is not MRI compatible
- Inability to lie flat
- Inability to tolerate the scan
- Altered mental status
- Severe arrhythmias

**Appropriateness**

- CMR is considered a mainstay of diagnosis and management of CS

**More Information**

- [Case of the Week 16-04: Cardiac Sarcoidosis: When Rhythm Becomes an Issue](#)

**References**