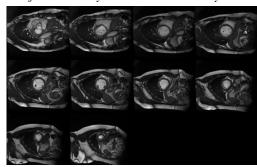
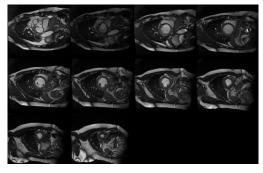
Prompt:

Suppose you are a medical imaging specialist, analyze these two frames cardiac cine-MRIs. The first picture is a frame of end-diastole. The second picture is a frame of end-systole. Provide as detailed an analysis as possible. Tell me if there is any cardiac abnormality.





GPT-4V:

From the cine-MRI images presented:

End-Diastole Frame (First Picture):

At end-diastole, the ventricles are filled with blood and are at their most expanded state. The cardiac chambers, especially the left ventricle, should appear largest in this phase.

End-Systole Frame (Second Picture):

At end-systole, the ventricles have just completed contraction, pumping blood into the aorta and pulmonary artery. The chambers should appear much smaller as the cardiac muscle has contracted.

General Observations:

The image quality appears to be clinical, with good resolution, allowing for detailed examination.

In a healthy heart, there should be a significant reduction in ventricular size from diastole to systole, indicating good contractility.

Potential Abnormalities:

If there is a lack of significant size change between the end-diastole and end-systole frames, it could indicate poor ventricular contractility.

Any asymmetry in wall motion, such as some areas appearing to move well while others do not (regional wall motion abnormalities), can be indicative of ischemic heart disease or previous myocardial infarction.

Areas of abnormal intensity within the myocardium could suggest fibrosis, infiltrative diseases, or other myocardial pathologies.

The size of the atria vs. the ventricles can give insights into valve function or pressures within the chambers.

Reference answer:

DCM