Kurzzusammenfassung: Cardiac sarcoidosis (CS) significantly associated with a poor prognosis due to the congestive heart failure, arrhythmias such as advanced atrioventricular (AV) block, and ventricular tachyarrhythmia generated from the active inflammation, granuloma formation and fibrotic changes. Thus, early and precise diagnosis of CS is needed. Recent studies demonstrated the usefulness of 18F-fluorodeoxyglucose (FDG) positron emission tomography (PET) / computed tomography (CT) and cardiac magnetic resonance (CMR) for the assessment of CS. Both of the criteria of Japanese Society of Sarcoidosis and other Granulomatous Disorders (JSSOG) and Heart Rhythm Society (HRS)’s Expert Consensus Statement have included as the key modalities. We review the feasibility of multimodality imaging for the management of CS. Focal FDG uptake represents the active inflammation, therefore FDG PET/CT is useful to not only diagnose but also to monitor treatment effects in patients with CS. The evaluation of heterogeneous uptake may be useful to diagnose CS and to assess the adverse cardiac events. CMR provides a noninvasive and multidimensional assessment by allowing for the detection of morphological abnormalities, abnormal ventricular function, edema and myocardial scar. Late gadolinium enhancement (LGE) on CMR is an effective technique for the diagnosis of CS. CMR has high diagnostic accuracy and prognostic value. Absence of LGE makes the likelihood of clinically relevant involvement quite low.

Lernziele: 1. To review the image characteristics of cardiac sarcoidosis with 18F-FDG PET/CT and MRI.
2. To focus the quantitative aspects of estimating extent and severity of cardiac sarcoidosis.