

Chest SY24-2



## Experience and its Lesion of Chest MRI in Hong Kong

Hiu Yin Sonia Lam

Department of Radiology, Queen Mary Hospital, Hong Kong

Pulmonary MR imaging is a challenging imaging assessment and has had limited clinical use in patients with pulmonary disease, when compared with radiograph, CT thorax and PET/CT study in particular. The limitation of MRI in pulmonary imaging assessment is mainly due to the low signal intensity as a result of intrinsic low proton density of pulmonary parenchyma, susceptibility artifact between air and tissue interface, as well as motion artifacts including cardiac and breathing motions. On the other hand, the lack of ionizing radiation, excellent soft tissue contrast, multiplanar imaging capabilities are the advantages of MR assessment, which would be particularly useful and important in young patients, pregnancy and patients with chronic disease requiring extensive longitudinal imaging follow up.

Recent advancing development and improvement in MR scanning techniques including very short echotimes, ultrafast turbo-spin-echo acquisitions, the potential clinical application of pulmonary MR imaging has been widened. Development of inhaled-gas methods has also opened up opportunities for functional lung imaging. Apart from pulmonary parenchyma, MR thorax is also useful for assessment of mediastinal, cardiac, chest wall tumours, pericardial and thoracic aorta pathologies.

Though CT and PET/CT still mainstay of thoracic imaging assessment in Hong Kong, MR is also getting more involved in thoracic assessment and may often even play a problem solving role when particular information not well provided by other imaging modality studies. In this lecture, the experience and current clinical practice in the use of chest MR in our institution in Hong Kong would be shared.