

Department of Diagnostic & Interventional Radiology

Happy Valley

Hong Kong Sanatorium & Hospital
1/F, Li Shu Pui Block
2 Village Road, Happy Valley, Hong Kong
Tel: (852) 2835 8900
Fax: (852) 2892 7530
radiology@hksh-hospital.com
www.hksh-hospital.com

Island East

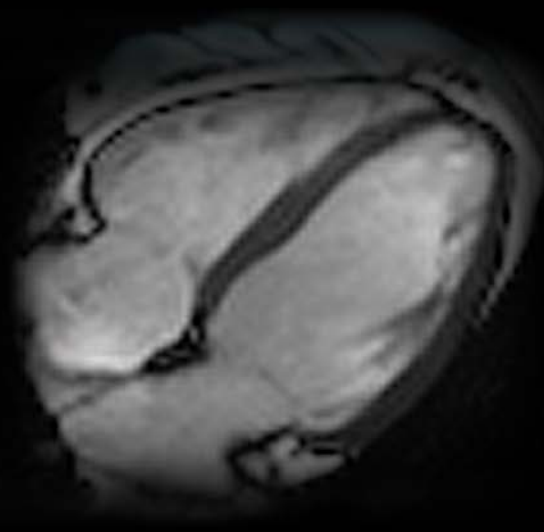
HKSH Eastern Medical Centre
HKSH Diagnostics Centre (Island East)
7/F, Li Shu Fong Building
5 A Kung Ngam Village Road
Shau Kei Wan, Hong Kong
Tel: (852) 2917 1270
Fax: (852) 2892 7407
radiology@hksh-emc.com
www.hksh-emc.com

養和

For enquiries and appointments,
please contact us



Cardiac MRI



診斷及介入放射部

Department of Diagnostic &
Interventional Radiology

www.hksh.com

What is Heart Disease?

Heart disease is a general term used to describe a spectrum of coronary diseases, which includes coronary artery disease, congenital heart disease, valvular heart disease and cardiomyopathy. Among them coronary heart disease is the commonest. Coronary heart disease is the Number 3 killer in Hong Kong, accounting for about 5,000 deaths every year. Early diagnosis and appropriate treatment can greatly improve mortality and morbidity. There is also a need for non-invasive and accurate studies to detect and evaluate patients with heart disease.

In view of a demand for early diagnosis, Hong Kong Sanatorium & Hospital is well-equipped with state of the art scanners. Its short bore and large gantry size can relieve patients' claustrophobia. With an enhanced gradient system, this scanner can do ultrafast scans on various body parts including the heart. A beating heart can be captured in crispy images, allowing the examination to complete within 30 minutes.

Magnetic Resonance Imaging (MRI) has a definite advantage over other imaging modalities in the study of heart disease. Its excellent contrast resolution enables clear differentiation of different heart layers, i.e. the endocardium, myocardium and epicardium. MRI is non-invasive as patients are exposed to no radiation during the procedure. Its unique multi-planar capability also surpasses other methods in studying the complex anatomy of cardiac structures.

Stroke volume, ejection fraction and myocardial mass are major indices of cardiac function. Using this new scanner, cardiac function can now be measured quantitatively for better and more thorough diagnosis.

MR Diagnosis of Coronary Artery Disease

Instead of "seeing" the narrowing of coronary artery in its actuality, MR detects coronary heart disease by revealing myocardial perfusion defects. Caused by inadequate blood supply, such defects are picked up during stress test. Doctors can evaluate the diseased artery by studying the site and extent of these perfusion defects.

The examination is very simple, which includes a normal test for 30 minutes. Myocardial stress is induced by injecting a special stress agent for a few minutes. A MR contrast agent is then administered at the peak of stress. The agent is very safe, and its effect will mitigate within 10 seconds after injection. This method has been adopted in many overseas centres with great success.

Further Evaluation

MR can be used to determine whether there is any reversible damage in heart muscle. It is of utmost importance to most patients as the damage can be "reversed" through such interventional procedures like angioplasty. Interventional procedures might be of little benefit to patients with irreversible damage in heart.

In short, MR supports the most comprehensive heart examination. Without using any invasive procedure and radiation, the heart's structure, function, coronary artery and muscle damage can be studied within 30 minutes. While an array of examinations was required in the past to give a full picture of the heart, today a single MR examination can acquire just the same amount of information in the most cost-effective manner. Indubitably, cardiac MR examination is essential to an informative study of heart disease patients.

For enquiry, please call the MRI Centre at 2835 8900.