

TAKING NOTICE OF CORONARY ARTERY DISEASE

Dr Liew Chee Khoon, Consultant Cardiologist in Ara Damansara Medical Centre highlights the importance of identifying modifiable risk factors for coronary artery disease early and explains the procedures involved in diagnosis of the condition.

According to Deputy Health Minister Dr Lee Boon Chye, heart disease has remained the leading cause of death among Malaysians since 2005. Apart from the fact that a growing ageing population with a longer life expectancy contributes to the increase of heart disease patients, the average age of people getting heart disease in Malaysia stands at 58, which is significantly younger compared to other countries such as neighbouring Thailand (65 years), mainland China (63 years), and Canada (68 years).

Meanwhile, the World Health Organisation reported that the Malaysian proportional mortality rate of cardiovascular diseases (CVDs) stood at 36 per cent in 2014. In addition, there has also been an increase in mortality rate due to heart disease, with a 54 per cent rise over 10 years

with 13,503 deaths in 2017 compared to 8,776 in 2007. Worldwide, an estimated 17.7 million people died from CVDs in 2015, representing 31 per cent of all global deaths.

"Nowadays, patients ranging as young as 20-30 year old can present with coronary artery disease /blockages and to older people who don't exhibit any classical symptoms like chest discomfort and shoulder pain. Coronary artery disease is no longer a disease that only affects the elderly—younger people need to be aware of the disease and the risk factors associated with it," says Dr Liew.

Coronary artery disease (CAD) happens when the coronary arteries (the arteries that supply



the heart muscle with oxygen-rich blood) become narrowed by a gradual build-up of fatty material within their walls.

The main causes of coronary artery disease are separated into two major groups—the non-modifiable risk factors and the modifiable risk factors. The first

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group of risk factors consists of inherent features such as gender, family history, and genetics for example. Meanwhile the second group, which comprises risk factors that can be treated—high blood pressure (hypertension), high cholesterol, smoking, and diabetes.

"The mnemonic that I use to help patients remember the modifiable risk factors is BCCD; B for blood pressure, C for cholesterol, C for cigarette, and D for diabetes. It aids patients in remembering the aspects of their life that they need to pay attention to, be it watching their diet to avoid diabetes and high cholesterol or cutting down on smoking," highlights Dr Liew.

"Of course, there are also other factors to pay attention to like lack of exercise and obesity," he adds.

Everyone, no matter the age, is advised to get their blood pressure, cholesterol, and fasting blood sugar levels checked regularly. If they're found to be high, patients ought to begin taking the necessary measures immediately to avoid further complications down the road. As for smokers, they need to be aware of the implications that cigarette has on their health.

When a patient comes in for a check-up, either due to

manifestation of symptoms, awareness of risk factors, or just for routine checking, they will be put through an exercise stress test, in which the patient will walk on a treadmill that makes the heart work progressively

harder and beat faster, while an electrocardiogram (ECG) monitors the heart's electrical rhythms. Various factors are paid attention to during the test, including appearance of chest discomfort, fatigue, abnormalities in heart rate and ST segment that could be caused by fatty deposits that reduce the flow of blood to the heart.

"For a more accurate coronary assessment if needed, we will perform the heart CT scan (CT cardiac), which could be checking the calcium score to determine the possibility of a calcium build up in the heart arteries, to injecting contrast into the bloodstream to look out for blocked coronary arteries, or both. The routine practice is to stop at the exercise stress test if the result is negative for coronary artery disease, but there are patients who requests for additional/more accurate tests



Dr Liew Chee Khoon

or the patients are still having symptoms i.e. chest discomfort," explains Dr Liew.

In the presence of non-critical coronary artery blockage, patients will first be treated with medication such as anti-platelet or blood thinners and statin

(cholesterol reducing medication) to prevent the existing plaque from becoming worse and blockages from occurring in other locations. However, if the blockage is critical, patients would still need medication coupled with coronary angiogram, either angioplasty (percutaneous coronary intervention PCI) or surgery.

"We will look at the age of the patient when treating coronary artery disease. If I see a patient who is above 80 years old with coronary artery disease (CAD), pre-morbid the patient is housebound or wheelchair bound, with a poor quality of life then I will be conservative with my treatment. But if the patient is younger, working, mobile, with good quality of life, then fixing the blockage is crucial for the patient. These are just some of the factors that doctors look into before suggesting suitable treatment to patients," concludes Dr Liew. ■



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