Prevention is key to managing coronary artery disease

Heart disease is one of the leading causes of death in Singapore. The most common cause of heart disease is coronary artery disease and it can lead to severe consequences like heart attacks, heart failure and death.

When coronary artery disease is severe, symptoms like chest pain on exertion, shortness of breath on exertion and easy tiredness or fatigue can arise.

Due to the progressive nature of coronary artery disease, early detection is imperative.

Classical risk factors include smoking, diabetes, high cholesterol, strong family history of premature coronary artery disease and age.

As we get older, the arteries in our body tend to degenerate and develop cholesterol plaques and arterial blockages.

Risk factors like smoking and diabetes build-up cholesterol plaques in the arteries.

Physical inactivity can lead to obesity and development of diabetes and metabolic syndrome.

A newer risk factor is inflammation, i.e. a low-grade attack of the arterial walls by the immune system. Most of these risk factors are silent killers.

So the first step in prevention of heart disease is to go for a general health screening. Once these risk factors are detected, the right lifestyle changes and medications can be implemented.

The next step is to assess the health of the blood vessels of the heart or brain. If the arteries are healthy, the likelihood of a heart attack or stroke is extremely low.

Previously, it was not possible to detect the development of cholesterol plaques in the arteries unless you did an invasive test. But it is now simple and convenient to assess with two easily accessible tests. One is the carotid ultrasound which assesses the large arteries supplying the brain, and the other is a CT coronary calcium score which assesses the heart arteries.

Both tests take less than 10 minutes to perform, are non-invasive and relatively inexpensive and safe.

If no cholesterol build-up is detected, the likelihood of a heart attack or blockage is almost non-existent and doctors can be more relaxed in their management of the risk factors.

However, if cholesterol build-up is detected, a more aggressive management of risk factors will be done with medication, followed by a more detailed testing for artery blockages.

Thanks to a combination of proper identification of risk factors of coronary artery disease and the imaging of the arteries themselves, we can now easily maintain the health of our arteries and prevent any severe consequences from developing.