Staying a step ahead of cardiomyopathy

A healthy heart pumps about five litres of blood per minute regularly throughout the body to ensure a human being stays alive. However, when there is an abnormality in the heart, problems can occur that would lead to serious complications and even death.

Cardiomyopathy, a disease of the heart muscle, is one such abnormality. Dr Shamruz Khan, consultant cardiologist at Subang Jaya Medical Centre, explains cardiomyopathy is an umbrella term for a wide spectrum of disease entities affecting the structure and function of the heart muscle. "It is a common final response of the heart muscle to various genetic and environment insults, making it harder for the heart to pump blood," he says.

Dr Khan mentions there are many types of cardiomyopathy, but it can generally be divided into two groups – ischemic and non-ischemic cardiomyopathy. Both groups of cardiomyopathies can ultimately lead to heart failure.

Ischemic cardiomyopathy refers to cardiomyopathy caused by significant obstructions and the narrowing of the arteries that supply the heart muscle itself, also called the coronary arteries. Other causes of cardiomyopathy that are not due to disease in the coronary arteries are categorised under non-ischemic cardiomyopathy. Usually asymptomatic in the early stage, it tends to occur in younger people and may be detected during regular health screenings, which can highlight abnormal blood tests and electrocardiograms, for example, among other findings.

Dr Khan advises living a heart-healthy lifestyle and making good lifestyle choices such as eating a healthy diet, getting regular exercise and sleep, and reducing stress.

Dr Shamruz Khan.

Be on the lookout

Dr Khan notes patients with cardiomyopathy can be relatively asymptomatic, or they can present with a wide variety of symptoms which include:

- Heart failure symptoms – reduced effort tolerance, breathlessness on exertion, leg swelling, abdominal swelling, fatigue, coughing when lying flat
- Chest pain/pressure
- Rhythm-related issues – heart palpitations or pounding/fluttering heartbeats
- Feeling light headed, dizziness, fainting
- Stroke
- Cardiac arrest
- Sudden cardiac death

It can be quite difficult to be certain if presenting symptoms are a result of a benign cause or because of cardiomyopathy, and as such, Dr Khan urges everyone to be vigilant. This is especially crucial if you have a family history of unexplained heart failure or sudden death in family members below the age of 50, or if you are experiencing any of these symptoms.

> "Dr Khan says the recuperation and quality of life of a person with cardiomyopathy highly depends on the presentation of symptoms, cause and type of treatment."

"There is no harm in checking if you have any of these symptoms. The critical point here is not to miss anything related to your heart, which can be catastrophic. Of course, some of these symptoms may be related to other factors such fitness-related issues, certain medications, other organ involvement or being on your feet for too long, among others. However, if it is indeed cardiomyopathy, then you can at least be treated earlier," he says.

He states that as a general rule of thumb, real symptoms related to cardiomyopathy would get progressively worse. One-off symptoms would usually not amount to anything serious on further assessment.

Vigilance is key

Cardiomyopathy is a dangerous condition as late diagnosis and treatment can lead to various issues such as valve problems, blood clots resulting in stroke and even heart failure, cardiac arrest and sudden death.

Hence, it is crucial to be aware of the condition and seek treatment as soon as you are diagnosed with it. While certain rare genetic-related cardiomyopathies cannot be prevented, Dr Khan says early detection and treatment can improve one's lifespan and symptoms. "We aim to improve the long-term outcomes, reduce the number of hospital admissions and the possibility of sudden cardiac arrest with treatment," he says.

He observes that sometimes when previously healthy people die suddenly at home, it was most probably the first presentation of a heart condition – in other words, the first symptom was death! In this situation, it is important for surviving first degree family members to get checked out, especially if the deceased was of a young age.

Hence, he advises to:

- Be vigilant of your family history, especially with regards to unexplained sudden death or heart failure
- Try to control traditional risk factors of diabetes, hypertension and dyslipidaemia
- Attend regular medical assessments
- Always be aware of symptoms – seek medical attention as soon as possible if they occur

Dr Khan also advises living a heart-healthy lifestyle and making good lifestyle choices such as avoiding the use of tobacco, alcohol or illegal drugs, controlling high blood pressure, high cholesterol and diabetes, eating a healthy diet, getting regular exercise and sleep, and reducing stress.

All in all, if you suspect you are experiencing symptoms which may be related to your heart as described previously, he urges speaking to a cardiologist before deciding on any further assessment, investigation and management. "Even if you are a fit athlete, you can have genetic abnormalities which can lead to cardiomyopathy. It can affect anyone, so it is better to be safe than sorry," he says.

■ For more information, call 03-5639 1212.

Am I at risk?

Because patients with cardiomyopathies can be relatively asymptomatic, a person's first and last symptom could be sudden cardiac death. Hence, it is important for people who are at a higher risk to go for regular check-ups to reduce their risk of complications or probabilities of sudden death. Some factors that could lead to a higher probability of cardiomyopathy are:

- Conditions affecting the heart including a previous heart attack, coronary artery disease or an infection in the heart
- Obesity
- Long-term alcohol abuse
- Illicit drug use such as cocaine, amphetamines and anabolic steroids

- Certain chemotherapy drugs and radiation therapy for cancer
- Family history of cardiomyopathy, heart failure and sudden cardiac arrest, especially those of a younger age (below 50)
- Long-term uncontrolled high blood pressure
- Certain diseases such as diabetes, an under- or overactive thyroid gland or hemochromatosis (a disorder that causes the body to store excess iron)

Long-term maintenance

In many instances, the causes of cardiomyopathy are idiopathic (unknown) or genetically inherited. For others, it is an acquired condition relating to other pre-existing health conditions such as metabolic disease, long-term diabetes, thyroid conditions, heart rhythm-related issues, viral, bacterial or fungal infections, uncontrolled stress or even previous infection with Covid-19. Therefore, Subang Jaya Medical Centre consultant cardiologist Dr Shamruz Khan explains doctors need to diagnose the accurate cause for each case before determining the treatment.

Depending on the type of cardiomyopathy and its cause, treatment can be administered via medication, surgery or devices. Dr Khan says the recuperation and quality of life of a person with cardiomyopathy highly depends on the presentation of symptoms, cause and type of treatment. All treatments have side effects, so the decision to employ a certain treatment looks at how the benefits outweigh the risks.

Dr Khan says, "Once you are diagnosed, you will be on quite a few different medications, so frequent follow-ups should be done to monitor your kidney function, assess symptoms and observe how the medication affects your health."

Hence, while you may live your life as normal after getting your cardiomyopathy stabilised, there are some new practices that you will need to add to your lifestyle such as:

- Take your medications as directed by your doctor
- Go for your regular check-ups and blood results monitoring
- Ongoing cardiac assessments which may include electrocardiograms, echocardiograms, cardiac CT or magnetic resonance imaging
- Regular device monitoring if device-based therapy is used
- Quit smoking, eliminate or minimise the amount of alcohol you drink, manage stress and get enough sleep
- Eat a healthy balanced diet, maintain an ideal body weight and get modest exercise after further discussion with your doctor about the most appropriate programme of physical activity