

Study may change care of heart patients

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Doctors can now identify heart failure patients who are likely to survive longer with proper care, thanks to a study carried out in Singapore and New Zealand.

The results of the research, which looked at different types of the condition, could change the way up to one in three heart failure patients is cared for.

Singapore has about 50,000 people living with heart failure, said Professor Mark Richards, director of the Cardiovascular Research Institute at the National University Health System.

The seven-year study of more than 2,000 patients found that the ejection fraction – the amount of blood pumped out when the heart contracts – is the deciding factor.

Close to one in three patients has preserved ejection fraction, which is now known to result in longer-term survival. Their hearts squeeze well, but do not relax so well – meaning less blood gets in.

This condition is found mainly in female and older patients.

The study also identified levels of a hormone in the blood produced by the heart as a powerful and independent predictor of death, regardless of the type of heart failure.

Knowing that people with preserved ejection fraction have a better chance of survival, doctors may work harder to lower the level of this hormone in such patients.

Prof Richards, a key researcher in the study, said it is often difficult for doctors and patients to accept the number of drugs – usually three – needed to get the patient to the ideal level, especially when the patient feels fine. He said the results mean doctors can now be more confident when they prescribe drugs.

The study was published in the European Heart Journal, which said it “accomplished what few global

50k

Number of people in Singapore living with heart failure.

1 in 3

Of them has preserved ejection fraction, which gives them a better chance of survival.

6

Number of years younger that heart patients here (with median age of 60-68) are than those in New Zealand (median age 66-74).

studies have”, with many “noteworthy” findings, including validating the hormone level as a risk marker.

Professor Tan Huay Cheem, director of the National University Heart Centre Singapore, said: “We have debunked a decade of false information on this condition.”

He added that information from the study will affect service and care, as well as planning and budgeting for the hospital. The study involved six centres here and was supported by grants totalling about \$10 million in the two countries.

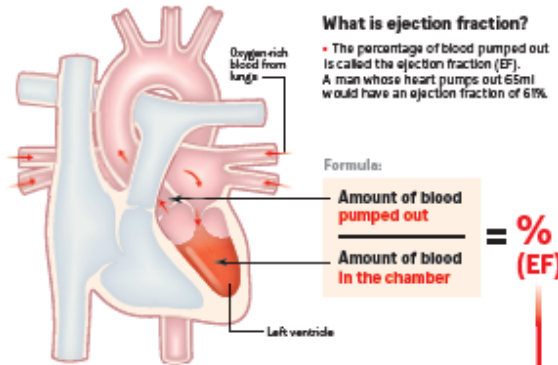
It also threw up some interesting characteristics of patients here.

Professor Carolyn Lam, director of clinical trials at the National Heart Centre Singapore and principal investigator of the Singapore arm of the study, said patients here were about six years younger than those in New Zealand – with a me-

Understanding heart failure: Ejection fraction

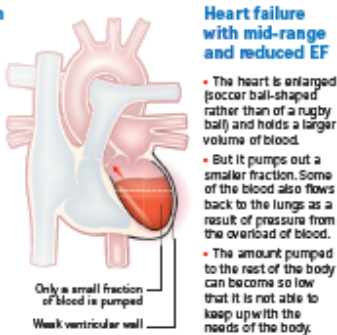
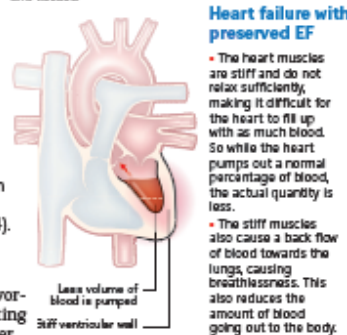
A NORMAL HEART

- When the heart muscles relax between beats, oxygen-rich blood from the lungs rushes in.
- A normal heart holds about 106ml of blood for men and 76ml for women.
- When the heart contracts, about 50%-70% of the blood in the left ventricle, or pumping chamber, is pushed out to the rest of the body.



HEART FAILURE

- This happens when the heart is not performing optimally and cannot provide a normal supply of blood to the body, organs and tissues.



Source: PROFESSOR CAROLYN LAM (NATIONAL HEART CENTRE SINGAPORE), PROFESSOR MARK RICHARDS (NATIONAL UNIVERSITY HEART CENTRE SINGAPORE), AMERICAN HEART ASSOCIATION STRAITS TIMES GRAPHICS

median age of 60-68, compared with 66-74 in New Zealand – and had a similar or greater number of medical problems.

Another find was that more than half of the patients here were diabetic, compared with about a third in New Zealand. “Our people are not ageing well. This is a wake-up call that heart failure is a big issue here,” said Prof Lam. “I strongly believe prevention is the key.”

She is coordinating a new clinical trial which will follow 2,400 diabetic patients in Singapore, Malaysia, China, Taiwan and India over two years to see if intensive therapy can prevent heart failure.

Prof Richards said about 6,000 patients are admitted to hospital for heart failure each year. They stay an average of five days.

The good news is the survival rate has “improved substantially”, with

half the patients living beyond five years. In the mid-1980s, only one in five survived more than two years.

While people here get heart failure at a younger age, Prof Richards added, the age at which heart failure hits people in the West has been going up over the past 30 years. He said: “We can optimistically expect the same progression in Asia.”

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