

Study finds poorer long-term survival rates for diabetic heart-bypass patients

'Aggressive treatment', such as diet and medication, crucial element in helping sufferers

NEO CHAI CHIN
chaichin@mediacorp.com.sg

SINGAPORE – Amid Singapore's war on diabetes, a new study has emerged on poorer outcomes for diabetic patients who underwent heart-bypass surgery, where a healthy artery or vein is grafted to a blocked coronary artery to create a new path for blood flow to the heart.

Diabetic patients who underwent the procedure, called coronary artery bypass grafting (CABG), had significantly reduced long-term survival and more deaths from heart-related causes, compared with non-diabetics.

"Aggressive treatment" of diabetes and other chronic conditions, as well as the stubbing out of any smoking habit, are essential to improve long-term survival in diabetic patients,

concluded the authors of the study.

Such treatment includes having the right diet and medication, regular eye, urine and neurological screenings for complications associated with diabetes, and maintaining optimal blood-sugar levels, said Dr Philip Pang of the National Heart Centre Singapore (NHCS), who was one of the study's authors.

Published in the March issue of ANNALS, the medical journal of the Academy of Medicine, Singapore, the study reviewed 5,720 patients who underwent CABG between 1982 and 1999 at NHCS. All had severe blockage involving more than one coronary artery. Their average age was 59 and 34.6 per cent had diabetes.

From this pool, researchers analysed two groups of 561 patients each, whose characteristics such as age, gender ratio and body mass index were matched to be as comparable as possible. One group had diabetes and the other did not.

The 20-year survival rate was about 35.4 per cent for the diabetics,

Diabetes' negative effects on the cardiovascular system

● These include the dysfunction of the blood vessels' inner lining, the tendency for inflammation and formation of clots, contributing to the blockage of blood vessels.

and about 48.9 per cent for the non-diabetics. At 20 years, the proportion who did not die of heart-related causes was about 57.8 per cent in diabetics, and about 70.2 per cent in non-diabetics.

Diabetes' negative effects on the cardiovascular system include the dysfunction of the blood vessels' inner lining, the tendency for inflammation and formation of clots, contributing to the blockage of blood vessels, said Dr Pang.

In the long term, poorly controlled diabetes may speed up the build-up of plaque inside one's arteries, as well as the bypass grafts.

Patients with untreated or poorly controlled diabetes who undergo CABG also face a higher risk of wound infections, some of which are potentially fatal, he said.

"It can also result in multiple end-organ damage that may lead to kidney failure, stroke and leg gangrene leading to amputation," he said.

The sinister effects of diabetes do not end there. According to Associ-

ate Professor Theodoros Kofidis of the National University Heart Centre, Singapore, advanced diabetes damages the nerves that transmit the pain sensation to the brain from the heart. The patient often does not feel the necessary alarm signal of chest pain when his or her heart artery disease is already advanced.

When the disease is discovered, many diabetic patients have already had silent heart attacks or are diagnosed at a comparatively more advanced stage, "simply because they are not naturally warned by pain and symptoms", said Assoc Prof Kofidis, who was not involved in the study.

Doctors tend to advise a more aggressive and definitive therapy for diabetic patients with heart vessel disease, he added. "Diabetes is an epidemic in our part of the world, and causes heavy socio-economical damage to our country and our patients."

Today, the NHCS performs more than 600 isolated CABG procedures — where it is the only procedure performed on the patient — a year.

Last month in Parliament, Health Minister Gan Kim Yong had declared war on diabetes, which is already costing more than S\$1 billion a year. Of more than 400,000 diabetics in Singapore, one in three does not even know he or she has the disease.