



Matters of the Heart

Coronary heart disease is on the rise among younger patients. The radial approach, which minimises injury and involves a short hospital stay, is now the preferred treatment.

– By Dr Tse Tak Sun

Most of us have heard of coronary angioplasty. It has a long history and we are still seeing new advancements being made. One of these, the use of radial access, was introduced to Hong Kong 15 years ago, and due to its reduced injury and faster recovery times, it is now the most common approach to the surgery.

With Hongkongers increasingly adopting Western dietary habits (i.e. consumption of trans fat) and sedentary lifestyles, we have seen a growing trend of coronary heart disease in younger patients, with

some even requiring coronary angioplasty before the age of 50. When the radial approach performed through the wrist first appeared 25 years ago, it was seen as a medical breakthrough.

In the traditional femoral approach, doctors make a small incision in the groin area, then insert the catheter and balloon through the femoral artery to open the narrowed coronary artery. This approach risks injury to the veins and nerves in the groin and causes bleeding in the femoral artery.

In radial access, the puncture site in the wrist is not near any major nerves or veins and so there is a lower risk of injury. It's also easier to stop the bleeding with a simple compression device, with less risk of complications. Radial access has now replaced the traditional approach as the standard for coronary angioplasty.

The transradial approach is technically more demanding, but with advancement in technology and technique, this approach is more frequently performed nowadays. And it is the preferred approach in the setting of acute myocardial infarction (heart attack) because of the lower risk of access site bleeding despite anticoagulants being used.

At present, over 95% of local patients undergo the radial access procedure. About 1% of patients have to stick to the traditional way because they have a small radial artery or renal failure which requires dialysis.


Many Hongkongers are afraid of coronary angioplasty because of the risk of injury. A 45-year-old patient, Mr Leung (alias), for example, consulted his doctor when he experienced chest pains. He was diagnosed with coronary heart disease and his doctor suggested he undergo coronary angioplasty surgery. Mr Leung was against it. A few months ago, he was again admitted to hospital for chest pains and it was found that three of his



coronary arteries were narrowed, including one that was 90% blocked. He did not agree to the surgery until his doctor convinced him that the operation involved only local anaesthesia, and that he could be discharged from hospital the next day.

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toward a healthy lifestyle, such as quitting smoking and doing at least 30 minutes of moderate-intensity exercise daily. 

The opening of narrowed arteries doesn't mean a patient is "cured" of heart disease. If the patient does not follow doctor's orders to take their medication and change their dietary habits for the better, they risk renarrowing of the arteries. They should cut saturated and trans fats from their diet to reduce their "bad" cholesterol levels, and take steps



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Gleneagles Hong Kong Hospital (GHK) is a state-of-the-art private hospital committed to providing Hong Kong people with high-quality and accessible healthcare services. Located at Wong Chuk Hang on Hong Kong Island South, GHK provides 500 beds and a comprehensive range of clinical services spanning more than 35 specialties and subspecialties, including being as the only 24/7 Outpatient and Emergency services private hospital on Hong Kong Island.

