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Malaysia deploys novel technology to lower recurring heart blockage risks

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Intravascular ultrasound (IVUS) is proven to be more effective in treating Coronary Artery Disease (CAD)

Patients with Coronary Artery Disease (CAD) in Malaysia can now opt for an advanced treatment solution that yields better, more promising outcomes. Intravascular Ultrasound (IVUS) technology, a diagnostic tool that is used in Percutaneous Coronary Intervention (PCI) procedures, uses sound waves to generate detailed imaging of the heart blood vessels, provides cross-sectional views of the artery, giving doctors information on the nature of blockages or compositions within one's heart and aiding practitioners in developing treatment plans for patients.

"This is a big step forward for cardiology in Malaysia. IVUS technology allows us to view a patient's heart from the inside-out, giving us the information we need to perform the procedure and to choose the most appropriate device. I encourage more doctors to use IVUS during their PCI procedures to get the best outcome," said Datuk Dr. Tamil Selvan Muthusamy, Consultant Cardiologist at Cardiac Vascular Sentral Kuala Lumpur (CVSKL). Datuk Dr. Tamil Selvan has performed more than 100 IVUS-guided procedures.

IVUS is proven to be more effective in treating CAD. A 3-year study was conducted to determine the percentages of patients who had recurring blockages after undergoing stent procedure (also known as Target Vessel Failure, TVF). The study involved 1,448 patients with clogged arteries. This extensive study found that only 6.6% patients who underwent IVUS-guided procedures had TVF. It is a significantly lower number than the 10.7% patients who faced TVF when not using IVUS for their procedures.

This data emphasizes IVUS's capabilities to help reduce the chances of TVF by almost half. The use of IVUS could improve the long-term results of angioplasty with stent implantation.

"With IVUS, doctors can get a clear look of the final stent expansions, reduce the chances of post-procedure complications thus achieving better long-term outcomes as shown innumerous studies. It helps to minimize the need for subsequent interventions" said Datuk Dr. Rosli Mohd Ali, Consultant Cardiologist at Cardiac Vascular Sentral Kuala Lumpur (CVSKL). To date, Datuk Dr. Rosli has performed more than 100 IVUS-guided procedures in CVSKL.

***Image caption**: Intravascular ultrasound image of a coronary artery (left), with color-coding on the right, delineating the lumen (yellow), external elastic membrane (blue) and the atherosclerotic plaque burden (green).*