DT Health: Rare cardiac surgery done at SIMS Hospital

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CHENNAI: A 66-year-old male patient was successfully treated for a rare cardiac cause of hoarseness of voice and breathing difficulty in a 66-year-old man through multiple complex surgical interventions at the Institute of Cardiac and Aortic Disorders team at SIMS Hospitals.

obstructive lung disease was made. But a chest X-ray revealed an abnormal shadow, calling for a CT Chest, which showed a large aortic aneurysm of 7 cm.

The echocardiogram showed that he had moderate dysfunction of the heart muscle, owing to which we decided to do a coronary angiogram that showed severe blockages of all his arteries supplying the heart muscle.

Highlighting the complications of this case, Dr VV Bashi, Director & Senior Consultant of the institute said, “Keeping the above challenges and the critical state of the patient’s medical condition in mind, our dedicated team of doctors planned to proceed with the staged procedure intervention. On receiving the consent we performed one procedure after the other, in a controlled manner. We did the CABG on a beating heart as the first procedure and then stenting of the aorta. We did bypass on a beating heart, without the need for a heart-lung machine and the balloon pump.”

Male Patient | Rare Cardiac Surgery | Cardiac Surgery | SIMS Hospital

Research reveals people burn fat at different rates during exercise

> *Kittrell is also Director of the Mount Sinai Physiolab, a clinical body composition and exercise physiology laboratory at Mount Sinai Morningside*

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Representative Image (Photo: ANI)

WASHINGTON: Researchers discovered that the optimal heart rate for fat burning differs from person to person and frequently does not coincide with the 'fat burning zone' on commercial exercise machines.

The researchers suggested that clinical exercise testing, a diagnostic procedure that assesses a person's physiological response to exercise, might be a better resource for assisting people in achieving their intended fat loss goals.

“People with a goal of weight or fat loss may be interested in exercising at the intensity which allows for the maximal rate of fat burning. Most commercial exercise machines offer a fat-burning zone’ option, depending upon age, sex, and heart rate,” says lead author Hannah Kittrell, MS, RD, CDN, a PhD candidate at Icahn Mount Sinai in the Augmented Intelligence in Medicine and Science laboratory. “However, the typically recommended fat-burning zone has not been validated, thus individuals may be exercising at intensities that are not aligned with their personalized weight loss goals.”

Kittrell is also Director of the Mount Sinai Physiolab, a clinical body composition and exercise physiology laboratory at Mount Sinai Morningside.

The heart rate and exercise intensity at which the body burns fat at its highest rate during aerobic exercise are sometimes referred to as FATmax. This intensity may be of interest to those looking to maximise fat loss during workouts since fat is now a significant source of energy.

In the study, the heart rate at FATmax, as determined by a clinical exercise test, was compared to predicted heart rates at various percentages of maximal effort within the generally advised fat-burning zone.”

The researchers found that the measured and predicted heart rates in a sample of 26 people did not agree well, with a mean difference of 23 beats per minute between the two measurements. This implies that general guidelines for a fat-burning zone” might not offer reliable advice.

The next phase of research will examine whether people who follow a more individualised exercise plan lose more weight and fat and improve metabolic health markers that indicate the likelihood of developing conditions like type 2 diabetes, obesity, and heart disease.

“We hope that this work will inspire more individuals and trainers to utilize clinical exercise testing to prescribe personalized exercise routines tailored to fat

Charles Bronfman Institute of Personalized Medicine, and System Chief, Division of Data-Driven and Digital Medicine, Department of Medicine.

The paper is titled “Discrepancy between predicted and measured exercise intensity for eliciting the maximal rate of lipid oxidation.”

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