

SUDDEN CARDIAC ARREST



P. D. HINDUJA HOSPITAL
& MEDICAL RESEARCH CENTRE

SCA (Sudden Cardiac Arrest)

Sudden Cardiac Arrest (SCA) is different from a Heart Attack. A heart attack blocks blood to the heart while a SCA stops the heart!!

SCA kills approximately 4-5 million Indians every year (2 per 1000 persons). SCA stops the heart thereby leading to death within minutes. This is caused by electrical disturbances of the heart where in the heart fails to function at a very fast heart rate.

Who is at risk for SCA?

Patients with prior heart attacks and reduced heart function face the highest risk of SCA. Patients who should undergo these tests are

- Patients with prior heart attack
- Patients with reduced pumping function of the heart (Ejection fraction < 35%)
- Patients with dilated hearts and ejection fraction < 35%.
- Patients with strong family history of SCA (especially in parents and siblings).

What is the SCA Package?

The SCA package has been designed keeping in mind the gravity of the situation facing us. SCA is rarely a random event. Although it may occur in outwardly health people, most of the victims have a previous history of heart disease (which they may or may not be aware of). This specially designed, one of its kind package being offered by our Hospital, includes a array of tests which help to determine the individual risk of getting a Cardiac Arrest in the near future in the presence of other risk factors as mentioned above.

Which tests are included in the SCA package?

The SCA package involves 4 tests followed by consultation with the cardiologist.

- Electrocardiogram (with Late Potentials)
- Exercise Treadmill Test (with T wave Alternans)
- 2D-Echocardiography (for ejection fraction)
- 24-hours Holter ECG recording (with Heart Rate Variability)

Details about the tests

- **Electrocardiogram (Signal averaged ECG with Late Potentials)**
This is a routine ECG test where the electrodes are connected on your chest and limbs and a ECG is recorded with a special machine. This machine amplifies your ECG and gives a value for the Late Potentials.
- **Exercise Treadmill Test (with T wave Alternans)**
In this test, one has to fast for at least 2 hours and the patient is made to walk on a treadmill. The speed of the treadmill increases every 2 or 3 minutes and the patient's condition, blood pressure and ECG are recorded. At the end of the test, the software calculates a value for T - Wave Alternans.
- **2D-Echocardiography**
This test visualizes the heart and its pumping function. This pumping function is called Ejection Fraction in medical terms. Patients with Ejection

Fraction < 35% are at high risk for SCA and need to be on proper medications.

- **24-hours Holter ECG recording (with Heart Rate Variability)**

This records your ECG for 24 hours and records rhythm disturbances of your heart. The ECG also records if you have any dangerous rhythms like ventricular tachycardia. The Heart Rate Variability value is derived from the software at the end of your test.

How do they differ from the routine tests?

Though the above tests are routinely performed in other hospitals, Hinduja Hospital is the only hospital in the country providing specialized ECG tests like Late Potentials, T wave Alternans and Heart Rate Variability for assessing the risks of SCA. One can consult his Cardiologist/ Physician with the reports to assess their risk of SCA.

For further information or queries contact any of our Cardiologists or Department of Cardiology.

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