

Understanding the Rising



Tide of Premature Heart Attacks in India: **Insights from Cardiologist Dr. Samin Sharma**

Q1: Your views on India witnessing a rise in premature heart attacks.

Heart attacks among young people have been seeing a rising trend in India. It has slightly increased since the pandemic. We have also seen sudden deaths among young people in the last 2-3 years post the pandemic.

People as young as 18-years-old have been developing heart attack without any risk factors like high cholesterol or diabetes. While the causes remain unclear, one possibility could be environmental factors like pollution. Chlamydia, respiratory infections and other viral infections have also been attributed to heart attacks.

The autopsies of some Covid victims shows that they had no blockage in the arteries, but had clots in the cardiac arteries, and in lungs. Whether this is due to Covid or any other infection we still do not know.

There are also speculations about whether the sudden deaths are because of some immune reaction to the anti-Covid vaccine or some silent damage or scar formation (myocarditis) due to SAR-CoV2 infection.

Studies have shown that heart attacks occur 10 to 15 years earlier among Indians compared to European countries or China and Japan. If you have had Covid, it is advisable to get an echocardiogram, to ensure optimal heart function.

Q2. What are the most avoidable lapses seen in seeking medical attention immediately?

In India, if somebody has health issue, a lot of time is spent initially in praying and calling on family members for advice before seeking medical help. Ambulance services are also not available in villages.

In Europe and America, it has been found that people wait for three hours on average, after the onset of heart attack symptoms, before seeking help. In India, people tend to ignore their symptoms for an average of 18 hours. Every hour is important. If the blocked artery is opened within the first hour, which is known as golden hour, the heart muscle can be saved. After three hours, only 50% of the heart muscles can be revived. If 12 hours have lapsed, the damage will be irreversible and opening the artery will be futile.

Q3: India has a huge pre-diabetes burden. Tell us about the risk factors and key interventions that can reduce the risk of cardiovascular disease and mortality later?

The risk factors include high blood pressure, diabetes, high levels of cholesterol, lipoprotein. Then there is the simple risk factor- physical inactivity.

Physical inactivity is a risk factor for heart disease and diabetes. Everyone is busy, career goal-oriented today and end up not taking care of themselves. This is where education comes in. And it is coming in. We will see the impact in another five to ten years.

There are simple steps to lower your risk of diabetes. Take care of yourself- exercise, take care of your weight and watch what you eat. Keep yourself fit. Devote some time to this, even in a busy schedule. That reduces pre-diabetes burden. India has become the hub for diabetes, almost 50 % of people above the age of 40 years are diabetic, compared to the 25 % in America. This is a result of physical inactivity.

There are a lot of other factors (that play a role)- like what we eat, obesity among others. But if you avoid being a ‘couch potato’-the term commonly used for physical inactivity, even in a small way, it will keep you away from getting into this pre-diabetic stage, the diabetic stage and more so, heart disease.

Indians are more susceptible to heart diseases with a 2-5 times higher incidence of heart disease than other countries. This makes exercising in moderation crucial.

Q4: What are some significant trends in the cardiology landscape that you are most excited about?

The biggest thing, from the cardiology point of view, is the development of various medicines which are changing the total landscape for cardiac patients. The biggest medicine, which has helped in cardiology, is the statin. The statins has shown to improve a person's life, decrease heart attack risk, make them live longer.

In the US, there are now cholesterol-lowering injections which are taken every six months. There are similar advances in medicines for diabetes. There are weight reduction drugs that have been approved and, in the US, the bariatric surgery numbers have decreased by 50%.

The whole process of treating blockages has also become safer with Percutaneous coronary intervention (PCI), which is a minimally invasive non-surgical intervention used to open up blocked arteries. With this, open heart bypass surgery numbers in the US and in India are significantly reducing. Other advancements like left ventricular assist device (LVAD) a device implanted in the chest of people with weak heart function, and Automatic Implantable Cardioverter Defibrillator (AICD) to treat irregular heart rhythms, all improve the quality of life.

For treating atrial fibrillation or irregular heartbeat, a new technique has come, called Pulsed field ablation (PFA), which is promising.

Another aspect besides treatment is reducing the risk factors or preventive care, which is where India still has a lot of scope. One must understand their problem and should get access to medical care. You do not want people to say, ‘Well I'm feeling fine’, until they have a heart attack or drop dead, at a time when preventive care is possible.

Q5: How do you keep your heart healthy as a cardiologist?

I exercise everyday— for 15-20 minutes in the morning and 30 minutes in the evening. My morning regime includes weightlift, treadmill, crunches, and in the evenings, I do elliptical workout. I have been consistent with my exercise for the past 20 years. This has helped me control my weight and be in better shape.