



Post-Covid, inflammation and endothelial damage increase heart risk. Studies show long-term effects of Covid itself. Some argue vaccines contribute, but Covid infection itself is proven to raise cardiac risk

During the early 1990s, when cardiothoracic surgery was not that popular, what inspired you to choose such a stressful field?

I was a 1986 batch MBBS student, and during house surgery in 1991, I worked under Dr Chandran Mohan and Dr Kiran Kumar. Their dedication and skill deeply influenced me. Cardiac surgery requires both medical and surgical expertise, with complex diagnosis, planning, and execution. This challenge, along with their inspiration, led me to choose the specialty.

It's said you decided to serve in the government sector because of your personal experiences. Given the many challenges in government hospitals, such as a lack of facilities, how has the journey been?

I come from the village of Kidangoor in Kottayam. Even as an MBBS student, villagers sought my help in accessing medical care, which nurtured my desire to serve locally. Despite warnings about poor facilities in government hospitals, I believed our people deserved care closer to home. That conviction, strengthened by a personal loss, pushed me to build facilities at the Kottayam medical college.

Can share that personal incident?

After my marriage in 1997, our first child developed breathing problems from neonatal respiratory distress syndrome. At the time, ventilation facilities weren't available in Kottayam and surfactant treatment was unaffordable. Tragically, we lost the child. That incident convinced me that Kottayam must have facilities to manage such emergencies, and to work for it became my mission.

Despite receiving numerous offers from the private sector, you chose to remain in the government sector. Do you regret that decision?

No. I knew government service meant lower pay, political hurdles, and bureaucratic obstacles. I accepted those realities when I joined. Though challenges remain, I believe commitment requires perseverance. I set myself a clear goal and pursue it. If one path is blocked, I find another. I've never felt that staying here was a mistake.

What's the status of cardiothoracic surgery in Kerala, both in the public and private sectors? Is it as advanced as in the rest of the world?

Kerala has high health awareness and good screening at primary and secondary levels. Routine procedures like bypass surgeries, valve replacements, and congenital treatments are accessible, especially in government hospitals. But advanced care – LV assist devices, ECMO, or heart failure treatments – can cost over Rs 1 crore. For middle-class families, one complicated hospitalisation can cause financial ruin. Social security support for cardiac disease is still lacking.



Among Malayalis, abdominal fat is common, largely due to heavy rice consumption. So, reducing carbs is important

Has there been a significant qualitative improvement in treatment facilities here?

Yes. At a recent interventional cardiology meet in Canada, the Kottayam medical college was noted for performing the highest number of primary angioplasties, proving Kerala's leading role despite a Covid dip. Primary angioplasty needs advanced facilities, trained personnel, and strong commitment – all of which exist here. Kottayam now treats all cardiac conditions, trains surgeons from across India, and faculty are invited overseas. Still, advanced care like prolonged ECMO or LVSS devices remains a challenge.

Kerala has the best healthcare system in the country. But Kerala is also the capital of all diseases. How do you explain this huge contradiction?

Prevention depends on diet, exercise, and lifestyle. Unfortunately, Malayalis have shifted to fast foods and bakery products high in trans fats. These poor food habits, more than lack of care, explain why lifestyle diseases are so common despite Kerala's strong healthcare system.

What's a good diet?

A healthy diet balances proteins, carbohydrates, and fats while cutting down on fried and processed foods rich in trans fats. Traditional items like banana stems and flowers once ensured better health, but are now neglected. Timing is equally important – good breakfast, moderate lunch, and light dinner helps. Early dinner with a 10 to 12-hour fasting gap, as seen in diets like intermittent fasting, can be very beneficial.

'COVID INCREASES HEART ATTACK RISK, ESPECIALLY AMONG YOUTH'



Dr T K Jayakumar, medical superintendent of Government Medical College, Kottayam, and professor and head of cardiothoracic and vascular surgery, has transformed the department into a centre of excellence in cardiac care. From pioneering paediatric heart surgery and transplants in Kerala's government sector to performing over 2,000 heart surgeries annually, his contributions are unmatched. He spoke to *TNIE* about Kerala being the capital of lifestyle diseases, importance of convergence of modern and traditional systems of medicines, and also how he never regretted his decision to stay in the public health system. Excerpts

Doctors face many problems, especially the younger generation...

Yes. Long hours, stress, night duties... there are many challenges. And many are beyond doctors' control.

It's said the average lifespan of a doctor is less than that of the general population. Is it true?

Yes. A Kerala-based IMA study confirms this.

You spoke about the importance of following an exercise regimen. Can you explain your regimen?

I do surya namaskar every morning for 15 to 30 minutes.

Yoga has been attracting a lot of controversy. Some say yoga has no scientific basis. Your thoughts...

It helps me a lot. I feel stronger and less lethargic. Research in India and abroad has proven that yoga lowers heart rate, BP, sugar, and cholesterol, and reduces inflammation.

Why are fewer doctors taking up cardiac surgery?

Stress, workload, and long training discourage students. It takes 15+ years to mature as a surgeon, unlike peers in IITs/IIMs who earn quickly. We suggest revising training to shorter, direct-entry programmes with better pay.

With AI advancing, will MBBS doctors become irrelevant?

No. Every patient and heart is different. AI can't fully replace doctors. But AI can help detect hidden arrhythmias, predict arrests in ICUs, and assist in robotic surgeries, though cost is a hurdle.

Is AI being increasingly used in the medical field?



In medical education, we need better assessment models, like the continuous evaluation used in IITs

Yes, especially in critical care and imaging (X-rays, CT, MRI). It improves precision and reduces manpower needs.

Has Kerala controlled surgery costs in the government sector?

Government hospitals keep costs low as profit isn't a factor. But weak insurance systems push middle-class families into debt.

Many medical negligence cases are reported. How do we tackle this?

100% results aren't possible. Communication matters. Errors can be reduced by adopting WHO-style checklists, like in aviation.

Will AIIMS in Kerala bring changes?

There's a misconception that every district needs a medical college. The true purpose of a medical college is to groom healthcare professionals and such institutions should only be established based on actual need. For treatment, a super-specialty hospital is often sufficient. Medical colleges require huge investments. If there's already unemployment among doctors, expanding further isn't practical – market studies are essential. The same applies to AIIMS. It isn't just the infrastructure, but the work culture and systems that define AIIMS. If we expect excellence, it will take time to develop.

Kerala is often claimed to be No 1 in healthcare. How do you substantiate this?

Given our IMR, MMR, and life expectancy, Kerala is among the best globally.

What qualities should a doctor have?

Be humane, listen to patients, accept criticism, pursue excellence, and ensure safety. Be a good human being.

TNIE team: Cithara Paul, Rajesh Abraham, Rajesh Ravi, Abhilash Chandran, Anna Jose, Harikrishna B T P Sooraj (photos) Pranav V P (video)

Have the reasons for heart diseases changed over a period?

No, risk factors remain the same.

Smoking and drinking remain the reasons?

Yes. But after the Covid outbreak, cases increased. Studies show that post-Covid, heart disease and deaths have risen, especially in younger patients. Globally, Covid doubles heart attack risk.

There are controversies around vaccines too. There are two arguments...

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We see sudden deaths in people who go to the gym and stay physically active...

Often, it's due to undiagnosed conditions, especially with family history. Post-Covid, younger people face higher risk. Lifestyle factors like stress, poor sleep, and diet add to it. More gym-goers mean more reported cases, though these issues existed before.

You mentioned that 40% of deaths are of people below 50 years of age. What are the reasons? Cholesterol?

Yes, cholesterol is a factor. I operated on a 22-year-old who had cholesterol deposits despite being fit and active.

Of late, there have been many 'gym deaths'. How can that be prevented?

Medical check-ups help detect risks early. Avoid heavy workouts after fever, as inflammation increases clot risk. Start gradually, ensure hydration, and monitor athletes closely.

Smoking was a factor earlier. Has it reduced now?

Yes, smoking has declined but heart cases have not.

Many resort to vaping as an alternative. Is it safer?

No, vaping and e-cigarettes also increase heart attack risk.

There are doctors who practice modern medicine and completely reject traditional systems of healing. What's your opinion on that?

Not everything in traditional medicine can be dismissed. We are testing an ayurvedic wound-healing preparation with promising results. Oils like 'murivenna' and some ayurvedic remedies, especially for rheumatic conditions, are effective. Even in my family, my mother benefited greatly from ayurveda.

Do you mean to say that we shouldn't completely reject traditional systems, but combine them judiciously?

Exactly. But with caution. The danger is when serious patients first go to tradi-

tional healers and end up reaching hospitals too late. Ideally, systems should complement but the choice must depend on condition and proper diagnosis.

Are you suggesting that all systems must be integrated?

Not blindly. Integration needs discussion, scientific validation, and evidence-based frameworks. Only then can we decide what works best for a particular condition.

You advise people to take sleep seriously. How many hours do you sleep?

(Chuckles) Around four hours. Right now, I cannot afford more sleep because of duty calls. I've conditioned myself to it for years, with short power naps in between. For me, that's enough.

Medical check-ups are crucial after a certain age. How often should people test?

If you are on medication, test regularly. Stress can raise BP and diabetes risk. People above 40 should test at least once a year, more often if issues exist. A BP apparatus at home is useful to monitor and prevent complications.

You are now in an administrative

The hardest part of a heart transplant is that a heart can only come from someone who has died, unlike kidneys or liver where live donation is possible

role. Does administration help or hinder your practice?

Administration has its pros and cons. It helps implement changes and improve systems. But surgery skills peak between 50 and 60. So, administrative duties can reduce practice time. It's about balancing both roles. Each doctor must choose their own path.

Dr Haris Chirackal of Thiruvananthapuram medical college has said youngsters aren't willing to enter government service. How much truth is there in those remarks?

Being a part of administration, I won't comment on controversies. But limitations do exist in a developing country – financial, infrastructural, and social. Criticism is easy, the harder task is facing challenges and producing results within the system.

How will you rate Kerala's medical education system?

Our system and training are among the best. But students must value commit-



ment and responsibility – since, in medicine, mistakes cost lives. Patients trust doctors as passengers trust pilots. We also need stricter regulations and perhaps better assessment models, like the continuous evaluation used in IITs.

There has been a demand to make medical colleges referral centres. Do you think that will help?

Yes. The casualty wing sees 700 to 800 patients daily, many with minor issues. This crowds out critical patients and wastes resources. A referral system would reduce overcrowding, improve hygiene, and ensure care for those who need it most.

Is there any issue with creation of posts at medical colleges?

The issue is financial. It depends on how much the government allocates to the medical sector.

It is said medical colleges are following the staff pattern of 1964...

Yes, that's true.

Many Keralites prefer to visit a specialist directly. Does this pressure the sector?

Yes, it creates pressure. Ideally, patients should see a general doctor first. But all health systems are facing the same problem. For example, some of my colleagues working in the UK have shared their opinion. The problem with the NHS (National Health Service, UK) is that a patient who approaches a general physician with a cardiac problem will have to wait for a year to get an appointment. An MBBS student who suffered a sprain in her leg didn't get an appointment even after waiting in the casualty for 24 hours. So, I think our system has many advantages. In many countries, you have to wait for six months to one year for an MRI scan, whereas we can get it done within a day. There are many advantages in our system. But there is misutilisation of resources, which needs to be addressed.

Many confuse chest pain and pain due to gas. How can we differentiate the two?

Heart pain may appear left, right, or central, spreading to arms with sweating or vomiting. But symptoms vary, so ECG is the best way out. Sometimes, repeated ECGs and blood tests are needed as early exams may not be clear.

You have worked under many health ministers. Who impressed you the most?

(Smiling) I worked directly with Shailaja George and the current minister (Veena Teacher) – both are very committed. I also met (the late former chief minister) Oommen Chandy sir, who listened carefully and supported us with equipment.

How did the building collapse affect the Kottayam medical college hospital?

It was distressing as a life was lost. I focus on my work, not controversies. If mistakes occur, I'm willing to accept responsibility, as my father taught me to do everything sincerely.

We have heard that you are a devotee of Lord Shiva. How has faith helped you?

Faith keeps the mind calm and strong. A healthy mind responds without harming others. That's the essence of spirituality.

Do you pray before surgery?

Yes, prayer remains in my heart... it's something I learnt in youth and still follow.