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HeartSmart targets at-risk South Asians

California doctor launches heart disease program

By Chris Nelson

SAN DIEGO — Dr. Purushotham Kotha wants South Asians to know that adopting a healthful lifestyle can do more than just improve a person's mental and physical health — it can also mean the difference between life and death.

Kotha has dedicated his career to halting the spread of heart disease among South Asians. In 2003, the San Diego cardiologist launched the Risk Intervention in Coronary Artery Disease in Indian Asians project to spread public awareness about the prevalence of heart disease among South Asians.



Kotha

"I started [the program] to gain the attention of the public and the medical community of this very serious problem," said Kotha, who is also a member of the American Association of Physicians of Indian Origin's coronary artery disease committee.

"I wanted to look into heart disease more and raise awareness among South Asians by promoting health screenings and offering the appropriate treatments."

The tax-exempt, not-for-profit venture promotes clinical, basic science and genetic research into coronary artery disease and offers advice to individuals regarding therapeutic lifestyle changes, pharmacological intervention and continued follow-up care. As part of the program, Kotha launched the Web site <http://www.heartsmart.info/>.

Kotha's research team has conducted studies at five sites in America and two locations in India since the program's inception.

Currently, the researchers are working alongside the University of Southern California's Department of Genetics to study genetic patterns in Indians, and with San Diego State University to study the high rate of metabolic syndrome and cardiovascular risk in college youth and people of multi-ethnic descent.

Kotha is part of a growing legion of scientists and even some national governments that contends South Asians — those born in India, Sri Lanka, Pakistan and Bangladesh — and their descendents are genetically predisposed to heart disease and other related illnesses.

"The last 50 years have produced hundreds of reports which show an alarmingly high rate of coronary heart disease and premature heart disease among South Asians," he said. "The trend was

first observed among Indians in the late 1950s and yet, very little has been done since then to reverse it. We are now witnessing the spread of an epidemic across the region and India is right in the middle of it."

Kotha's interest in the problem took root some three decades ago after he moved to England from India following his graduation from medical school.

"I graduated from Ghandi Medical College in 1978 and moved to England that year to begin my medical training," he said. "It was there that I observed firsthand a high incidence of heart disease and other illnesses like diabetes among England's rather large Indian immigrant population. That's when it caught my attention â€” why are these people more prone to heart disease than the Europeans or the Americans?"

Kotha pored over volumes of scientific reports, hoping his research would yield some clues. What he uncovered disturbed him.

"All of the studies that examined this problem emphasized treatment, not prevention," he said. "That's when it occurred to me that South Asians understood very little about their risk of developing heart disease."

According to Dr. Enas A. Enas, the director of the Illinois-based Coronary Artery Disease among Asian Indians Research Foundation, non-resident Indians are three times more likely to die from heart disease than Americans, Europeans, Chinese and Japanese â€” regardless of their gender, religion, or social class.

"Asian Indians residing in different countries have higher rates of incidence, hospitalization, prevalence, morbidity, mortality and case fatality from cardiovascular artery disease than people of other ethnicity. The [rate of heart disease] in urban India over the past 40 years has increased dramatically and is now similar to that of overseas Indians and several times higher than in other Asian countries," Enas wrote in the 2001 study "Coronary Artery Disease in Asian Indians: An Update and Review."

The National Vital Statistics System of the Centers for Disease Control reported that in the 1990s, heart disease was the leading cause of death among Asian Indians living in the United States, accounting for 34.6 percent of all deaths.

Not surprisingly, the National Institutes of Health's "Healthy People 2010" program has designated the Asian-Indian immigrant population in the United States as a high-risk group for heart disease. Studies show that South Asians â€” Indians especially â€” are genetically predisposed to heart disease. In 2003, scientists discovered that Indians have high lipid or fat levels in their blood because of a "thrifty gene." The gene directs the body to store as fat the foods people eat rather than metabolize them. By itself, the gene doesn't necessarily lead to a heart problem. Rather, it is the combination of genetics and other risk factors like dietary choices and cooking habits and a cultural disdain for physical activity that doctors say can trigger a heart attack.

"The way we cook things is very bad for us," Kotha said. "Indians tend to use a high concentration of dairy products and simple sugars when they cook, and they also like to fry things in butter or whole milk. What this does is increase a person's triglyceride levels, raise their 'bad' cholesterol and lower their 'good' cholesterol."

The thrifty gene is closely linked to the onset of symptoms in the body which doctors call "metabolic syndrome." It includes a combination of medical disorders such as insulin resistance, hypertension, obesity and dyslipidemia, or elevated lipids in the blood.

"These are metabolic abnormalities that are commonly found among South Asians, yet Indians are more susceptible to them," Kotha said. "They are strongly influenced by one's diet."

Researchers have identified metabolic syndrome as a strong determinant of type-2 diabetes.

Though it is still in its infancy, the Risk Intervention in Coronary Artery Disease in Indian Asians program has succeeded at spreading the message about heart disease and South Asians.

Dr. Naga Thota, a San Diego pain-management specialist, credits it with changing his life for the better.

"Three or four years ago, I attended a conference of Asian-Indian physicians in San Diego which Dr. Kotha was presenting at," said Thota, 52. "I went because I wanted to make some friends and eat good food â€" I wasn't even listening to the discussion â€" yet the things he talked about caught me off guard. I went up to him after he completed his presentation and asked him if I could make an appointment to see him."

Kotha spoke that day about cardiac problems commonly found in people of South Asian descent. He implored the audience, which was comprised mostly of Indian physicians, to pay attention to their own health and spread his message to others.

"At the time, I was overweight with a big tummy," Thota said. "I ate whatever I felt like eating and didn't exercise. I couldn't play with my kids because I was always tired."

Kotha put Thota on medications to control his elevated cholesterol level and counseled him on the importance of exercise and proper nutrition. The therapeutic treatments worked: Thota lost 15 pounds, his cholesterol level dropped from around 300 to less than 150, his triglyceride level declined from more than 600 to less than 100 and his energy soared.

"I feel fantastic," Thota said. "I can play with my kids now, my suits fit much better and I'm much happier than I was before I saw Dr. Kotha. I feel like I have a totally new life."