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Shawl Puts Heart Into Saving Lives

TEXT BY STEPHEN GOODE/PHOTOGRAPHS BY RICK KOZAK

ıe pioneering medical techniques of Fayaz Shawl have lped to revolutionize the field of cardiology, but this ıovator still believes that prevention is the best cure.

ayaz Shawl is one of the world's leading interventionist cardiologists. That means he is a medical doctor who works on the heart and arteries without open-heart ;ery and with only a minimum of bod- 'nvasion, usually a catheter inserted ugh the groin. He has performed about)00 of these procedures, probably more ı any other physician in the world. wl is director of interventional cardiol- at Washington Adventist Hospital in)ma Park, Md., and a clinical professor 'eorge Washington University Medical)ol in Washington.

Shawl also has pioneered in carotid ts, a complex procedure that clears up 'kage in the neck arteries and helps pre- t stroke. Recently he has been re- 'rching what happens when patients ı severe heart disease experience relief ymptoms after tiny holes are made in walls of their hearts. Another of his cur- interests is the possibility of growing heart muscles and arteries by placing ı cells or bone-marrow cells in those holes.

Born in 1951 in Kashmir, India, Shawl ıe to the United States in 1977. He ked at Prince George's Hospital Cen- in Maryland and then at Walter Reed y Medical Center, serving as a captain then a major in the U.S. Army. He ned with Andreas Gruentzig and 'hard Mylar, who were among the earli- levelopers of interventionist techniques. INSIGHT interviewed Shawl in his office Washington Adventist Hospital. Also sent was retired U.S. Army Brig. Gen. Robert Castorr, 91, one of the doctor's y success stories. Shawl performed a procedure using one of his carotid stents on the World War II veteran, who now is amazingly healthy.

Shawl trains students worldwide in his techniques, both during his frequent travels abroad and through closed-circuit television. He has established or is in the process of establishing medical centers in his native Kashmir, in Dubai and elsewhere. "I have been a fortunate man," he tells INSIGHT. "It's only right that I should be very generous."

INSIGHT: Beginning in 1988, you pioneered a technique called "percutaneous cardiopulmonary support." Since that time it has saved many lives. Exactly what is this procedure?

Fayaz Shawl: Basically it is for patients who are inoperable. They are so sick you can't even touch their hearts. You can't do surgery, so what I do is go in from the groin.

Let me explain. In some instances, a surgeon opens the chest, puts in the catheter. A heart-lung machine takes the blood, and the heart rests while you do the surgery. But the surgeon has to open the chest to stop the heart. I do this by going in through the groin. I miniatured the technology. When you go through the groin rather than the chest there's no need for more than a local anaesthesia. The patient is talking to you as you operate and can go home in two days.

I developed this technology in 1988, and between 1988 and 2000 we cardiologists did 23,000 of these. There were 39 cardiac arrests out of those 23,000 cases. Of the 39, we saved 31. That's why a lot of people around the world come to see me.

Q: The Shawl technique, as it has come to be known, allows doctors to do all this without surgery. You also have described

Personal Bio

Fayaz Shawl: The doctor is in and doing some amazing work, thank you, all over the world.

Currently: Director of interventional cardiology at Washington Adventist Hospital, Takoma Park, Md., and at Prince George's Hospital Center, Cheverly, Md.; clinical professor of medicine, George Washington University Medical School, Washington.

Born: Nov. 24, 1952, in Srinagar, Kashmir, India; educated in India.

Family: Two sons, David and Jonathan, from his first marriage. His second wife, Jina, is expecting a child in March.

Career highlights: Cardiology fellow, Walter Reed Army Medical Center and staff cardiologist; major, U.S. Army (1979-82); staff cardiologist, Prince George's Hospital Center; director of interventional cardiology, Washington Adventist Hospital; executive director, Interventional Cardiology Research Institute, Takoma Park, Md.

Author: *Supported Complex and High-Risk Coronary Angioplasty* (1991); member, editorial board, *Journal of Invasive Cardiology*; contributor of chapters to medical books and scientific journals.

Awards: Commendation Medal for introducing coronary angioplasty to U.S. Army (1981); recognition award, Maryland House of Delegates (1989); recognition award, India (1992).

ıt you do as "one-stop shopping."

A: I can do heart arteries, leg arteries, ıey arteries, brain arteries. Plaque can does accumulate in any and all of these tions. But I can open anything in the y without surgery. There are a lot of peo- who do it now, but I'm the innovator.

Q: You're a great advocate of the pre- ion of disease. What should we be ıg every day to maintain our health and) our hearts and arteries working well?

A: The human body is like a car, I al- s say, a Mercedes-Benz. You want to ıtain your car regularly rather than have :akdown. So when you turn 40 if you're ale, and at menopause if you're a ıan, you should have regular checkups ›reventative maintenance.

Also there are five high-risk factors, if you have even one of these you ıld have a yearly checkup that consists stress test to make certain your blood sure is under control and that checks the ırteries and the brain arteries, because of the important killers are heart attack stroke, and you can prevent them by / checkups.

The five high-risk factors are one, smok- two, high blood pressure; three, dia- s, the silent killer; four, bad cholesterol. finally, five, people who have a fam- istory that indicates problems.

)ne of my specialities is early diagno- because you can do so many things out surgery or without angioplasty n you recognize what's happening early. ›u can do that you can help the patient ve longer with a sense of well-being. ınd why will you have a sense of well- g? Because, first, if you are preventing t disease you will exercise. Exercise is nportant, especially aerobic exercise :h involves walking briskly at least 30) minutes a day, three times a week.

econd, you will have a sense of well- g because of what you put in your /. You will begin a simple, low-fat diet. ›mmend not more than 20 grams of fat y. Twenty grams! Your nice, juicy seburger is 25 grams — subsist on ı and you're dead. You're gone.

What I want you to do is exercise and low-fat diet. Look at me. I'm 51 years ınd I'm like a teen-ager. My energy is . I never think of fatigue.

hird, water is important. I recommend lasses of water a day. It is important for metabolism, for your energy. And it is important for your hydration. You will look better and even will have fewer wrinkles.

We have drugs now that can prevent kid- ney failures. We have drugs now that pre- vent strokes. We have drugs that prevent di- abetes. But the key thing is early diagnosis.

Q: When you were completing your work for the medical degree in Kashmir, you did volunteer work that took you to a very remote village. Tell us about that.

A: Yes, I volunteered to go to a very small place, Shahadra Sherief, in the foothills of the Himalayas. It's about an hour's flight from Kashmir, followed by an all-day bus trip, and then travel by horse for about three hours. It has only a small hospital, a dispensary really, with one nurse and one assistant. At 21, I was the only doctor there.

At 21, I was the only doctor [in Shahadra Sherief]. I did everything medically for the people, but also I was their notary public and their judge. Every Sunday, without a jury, I held court to settle disputes.

I did everything. Everything medically for the people of the area, as I've said, but also I was their notary public and I was their judge. Every Sunday, without a jury, I held court to settle disputes. They thanked me however they could. Every morning people were in line with chickens and with eggs and vegetables. At the mosque on Fridays, or when I would take a walk in the evening, people would come in from the paddy fields and say, "Please, sir," and give me chicken and eggs. Fortunately I like chicken.

Q: And after your volunteer work you spent some time in the United Kingdom?

A: Oh yes, but it seemed there was trouble. I had said goodbye to the people of Shahadra Sherief and was awaiting a visa when I was told, "You are going to stay in England and aren't going there just to take the exams."

I didn't have much money, and I didn't know what to do. I went to a mosque. Then I went to Delhi. It was the monsoon season, and from the early morning I stood out in front of the foreign ministry. They wouldn't let me in because I was soaking wet.

When the minister came at 6:30, I was there. I stopped his car like this [Shawl raises his arms above his body as though he's standing in front of the limousine].

"Who are you?" the minister demanded.

"I'm Fayaz Shawl, son of your friend with whom you played football. I need a visa to England."

"No problem. They can't stop you," he said.

I got the visa that afternoon and went to England. My father had been a very generous man and people like the minister remembered him fondly. He had a carpet factory, made 100-percent silk carpets. He liked to dress well, wore Italian clothes, but if he saw anybody on the side of the road, shivering and cold, he would say, "Driver, stop the car. Take this coat out and give it to him and tell him to come tomorrow for the pants." My father never kept a suit more than a week.

I have been a very fortunate man.

Q: But then you did stay in England, even though you passed the exams which qualified you for a medical residency.

A: Yes. I did not go back to Shahadra Sherief. I started to go back, but the friend I was staying with said, "I want to show you around the hospital where I work." I went with him and while I was waiting for my friend to make his rounds an old Englishman asked me, "What are you doing here?"

I told him I was getting ready to go back to Kashmir. He said, "What's the matter, don't you like England?" He happened to be chief of medicine, and he told me, "Come back on Monday." I did, and I remained in the United Kingdom until 1977, completing my residency and doing postgraduate work.

Q: You have emphasized the importance of prevention when it comes to heart problems. What can people do to reduce the stress under which they live?

A: How to be free of anxiety and sleep like a log? You want to know how to do that? The first thing is, make the best of today. Whoever I am talking with, for example, I

separate myself from the rest of the world and make the best of the conversation.

Whatever you do during a day, make the most of what you're doing *that day*. On a Friday, let's talk about what Friday brings, because Sunday does not belong to us. Anticipating Sunday can ruin a whole weekend [laughter]! And when you go to bed at night, don't start thinking about the next day. Don't let yourself fear for tomorrow, but learn from yesterday.

Second, you must forgive and forget. If you don't forgive people, it's going to hurt you. You cannot change people, and if you think you can it will drive you crazy trying to do so. But you can change yourself. And you must learn that the more you give, the more you get.

And you know what? It is in the literature — studies show that when you are depressed you get the same result from 45 minutes of exercise as you do from taking an antidepressant. There is no difference. The result is the same. That's because exercise increases the number of endorphins.

Q: What about caffeine and its effect on the body? Some people think we should avoid it entirely.

A: One or two cups of coffee in the morning should be no problem. Things should be done in moderation, and not overdone. It's the extremes that can hurt.

Q: One of the procedures that you've pioneered involves carotid stents, and one of your many success stories in this procedure is Gen. L. Robert Castorr who is 91 and in obvious good health. What did you do for Gen. Castorr?

A: Let him tell it!

L. Robert Castorr: I went to the Naval Hospital in Bethesda. I had an 80 percent blockage of my carotid artery on my left side. This put me in danger of having a stroke. They wanted to cut in, but I happened to be talking to some Pakistani friends here in Washington and Dr. Shawl's name was mentioned. "Why don't you go and see him?" they said.

I went to see Dr. Shawl and he said, "We won't go in there with surgery, but I'll take care of the problem." So he went up through the groin, across by body and into my neck, put a balloon in there and opened it up. He then put a stent in the problem area and I was up the next day.

Q: What else has Dr. Shawl done for you?

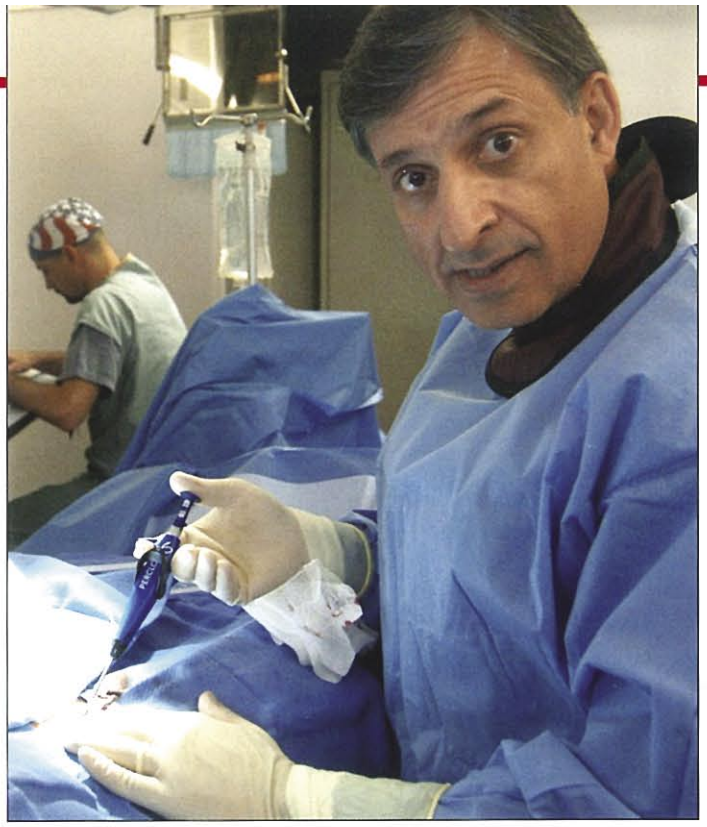
A: Later on, I had this heart attack. A valve gave out, calcified and stopped on me. The Navy says you must have open-heart surgery, definitely. The cardiology chief at Johns Hopkins says open-heart surgery. He gave me only another couple of weeks to live.

So I went to my friend Dr. Shawl and he said, "I'll go on up there and take care of that with the balloon procedure," and he did, and I was out the second day. I've been walking miles every day on the treadmill.

Q: Dr. Shawl, you have warned that carotid stenting is a complex procedure that should be done only by experienced experts, isn't that so?

A: Cardiologists must not attempt work on the carotids unless they know the anatomy very well indeed. In fact I've said that cardiologists should do at least 75 to 100 cases a year to keep on top of things, to maintain proficiency.

Q: One of the new techniques you're now pioneering has been described in the press as putting "holes in the heart." These "holes" don't go through the heart but are very small indentations in the heart lining. What does this do?



Technique: *Dr. Shawl operates on arteries of the heart without opening the chest, using miniaturized instruments.*

A: There are some patients who are inoperable because their arteries are too small. They have basically nothing left and cannot open their arteries. Nor can we do open-heart surgery on them.

From studies we know that crocodiles have tiny holes in their hearts and these may be beneficial to them. And now we have studies that show that when we make tiny holes in the heart of a human patient they will feel better. But why do they feel better? We have done a blind study which shows that there was no difference in the way they felt between patients who had the holes put in their hearts and those who had just a catheter. So the good feeling may be just a placebo effect. But what I believe happens is that there is a change in motivation. Having had something done to him, the patient starts exercising, and that's how it works.

At the same time, with the holes, I have opened up a new procedure in which we make the tiny holes in the wall of the heart and put a drop there of stem cells, or just a small piece of muscle from your own leg. And from that little hole will grow a new heart-muscle cell.

Q: And thus regenerate the heart from growing new cells?

A: We have just learned something very fascinating. A friend of mine at Emory University has discovered that your own bone marrow has specialty cells. If you take them out you can use the heart muscle to regrow new arteries and new cells.

Q: You can take these bone-marrow cells and place them in the holes in the heart?

A: Yes. I was one of the first to do this. When you have a heart attack, the muscle dies. So we inject these marrow cells and they will regrow. It could be the most exciting research I've ever done.

Stephen Goode is a senior writer for ***Insight***.