

TODAY'S THEME

BIOTECH & HEALTH

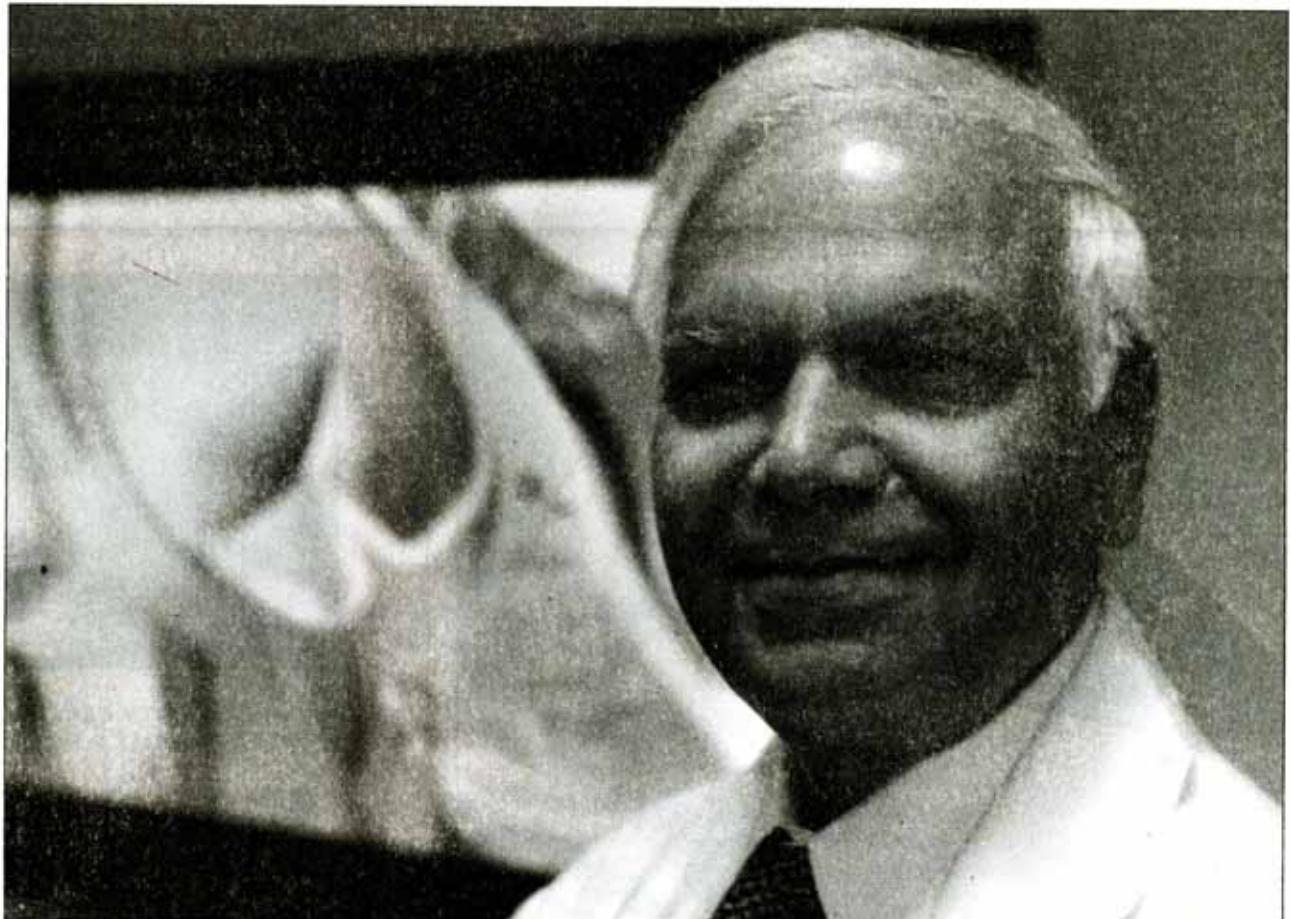
VALVE CHECK

Dr. Pravin Shah is at the helm of a new center dedicated to heart-valve disease. **Page 4**



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| The Orange County Register • Thursday, June 29, 2006 |



YGNACIO NANETTI, THE REGISTER

EXPERT: Dr. Pravin Shah says many heart valve defects are present at birth "but you don't know about it until much later."

Hoag clinic keys on heart valves

The director of the new facility sees early diagnosis of defects and disease as a major goal, along with educating health professionals about a growing specialty.

By **BLYTHE BERNHARD**
THE ORANGE COUNTY REGISTER

Keeping your heart healthy isn't just about keeping your arteries clear.

The flapping valves that allow the blood to circulate into and out of the heart are important, too.

An estimated 50,000 adults in Orange County have a valve abnormality; the most severe cases can require surgery.

The new Hoag Heart Valve Center is one of a handful of clinics nationwide dedicated to the screening and treatment of valve disease.

A three-dimensional heart scan for detecting abnormalities costs about \$250.

Dr. Pravin Shah, the center's medical director, talks about valve disease and the new program.

What's the idea behind the Valve Center?

The center is dedicated toward early diagnosis. A one-stop diagnostic center where you get your cardiovascular consultation, echocardiogram and surgical consultation if you need it. Plus it's going to have education for the person who wants to know what valve disease is all about.

Is this a growing industry?

At one time valve surgery used to be 5 to 10 percent of open-heart surgeries. Now in some hospitals like ours, it's 35 to 40 percent. It's a growing field without a doubt.

Is it a cost-saver?

In the long run of course it will save costs. If you're able to repair it successfully, that valve will be good for 20 to 30 years. But if you had to have another operation the cost would be significant. The productivity of a patient also improves.

Why open a specialty clinic?

Education is the No. 1 thing. The hospitals across the country that do not have the rates of success that we have can come to our center, come in

the operating room and see how our teamwork functions.

So, what is valve disease?

The heart has four valves - two on the right, two on the left. Their function is to allow blood to flow in one direction. Valves are subject to some abnormalities. Those abnormalities mean blood goes in the wrong direction. When back flow occurs, the work of the heart is increased because the heart has to pump blood that we need for daily living plus compensate for the back flow. That eventually results in heart failure, irregular heartbeats, enlarged hearts and, once in a while, sudden death.

What causes valve disease?

Most of the conditions are genetic. You're born with it, but you don't know about it until much later in life.

What are some common forms of valve disease?

Mitral-valve prolapse is a common condition. When the valve closes it prevents the blood from going back to the upper chamber. The abnormal valve bulges back into the upper chamber.

As it progresses it starts to develop leakage. That back flow increases progressively until it's so severe that if it is not fixed, congestive heart failure occurs.

Also, about 1 or 2 percent of the population will be born with an abnormal aortic valve. That abnormality doesn't produce anything until later in life there is calcification and plaque; that valve becomes obstructed and starts to leak.

Who should get screened?

The screening should be for people who have been told they have a heart murmur. The other group of people who should screen is patients who have a family history of valve abnormalities.

And anybody who has symptoms such as shortness of breath or getting tired too easily.

Why is earlier intervention helpful?

Earlier intervention is helpful to the patient before your heart chamber dilates or enlarges and starts to get damaged.

How do you treat a valve abnormality?

We can delay the progression of valve disease by controlling diet and taking statins (cholesterol-lowering drugs).

What if surgery is needed?

Open-heart surgery can be done with the full chest open or with a small incision. When you do it with a small incision, you use a robot and special instruments to guide the surgery.

There is research going on for new approaches which will be catheter-based, without opening the chest and without going on the heart-lung bypass machine.

It's at least three to five years away.

How successful is valve surgery?

We have a dedicated team approach between the surgeon and a cardiologist working together in the operating room to analyze the valve and give a roadmap to the surgeon.

When the surgeon attempts a repair, before he closes the chest, the cardiologist re-examines the valve. If it shows significant leakage, the surgeon can revise the repair. With that approach, between January 2000 and now, we have a 98 percent success rate for mitral valve repair.

Why is valve repair preferable to artificial valve replacement?

Your own valve provides you with excellent ability to do all the stuff you want to do without having to take blood thinners. There is not a valve that's made that's as good as your own valve.

MORE INFORMATION

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