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Dr. Jones' Heart Evaluation Technique

New Camera Promises Improved Diagnoses

By Charles Young

The man lying on his back on the table looks out from behind the oxygen mask and the doctor tells him the next thing he feels will be a slight pain in the neck.

He turns his head to glance at the needle and, seeing that it is only a small one, resumes his stoic position, staring at the ceiling.

For this man already knows something about pain. He's been in an automobile accident and he took a steering wheel in the chest. He knows that a little pinprick isn't likely to amount to much by comparison.

Gamma Camera

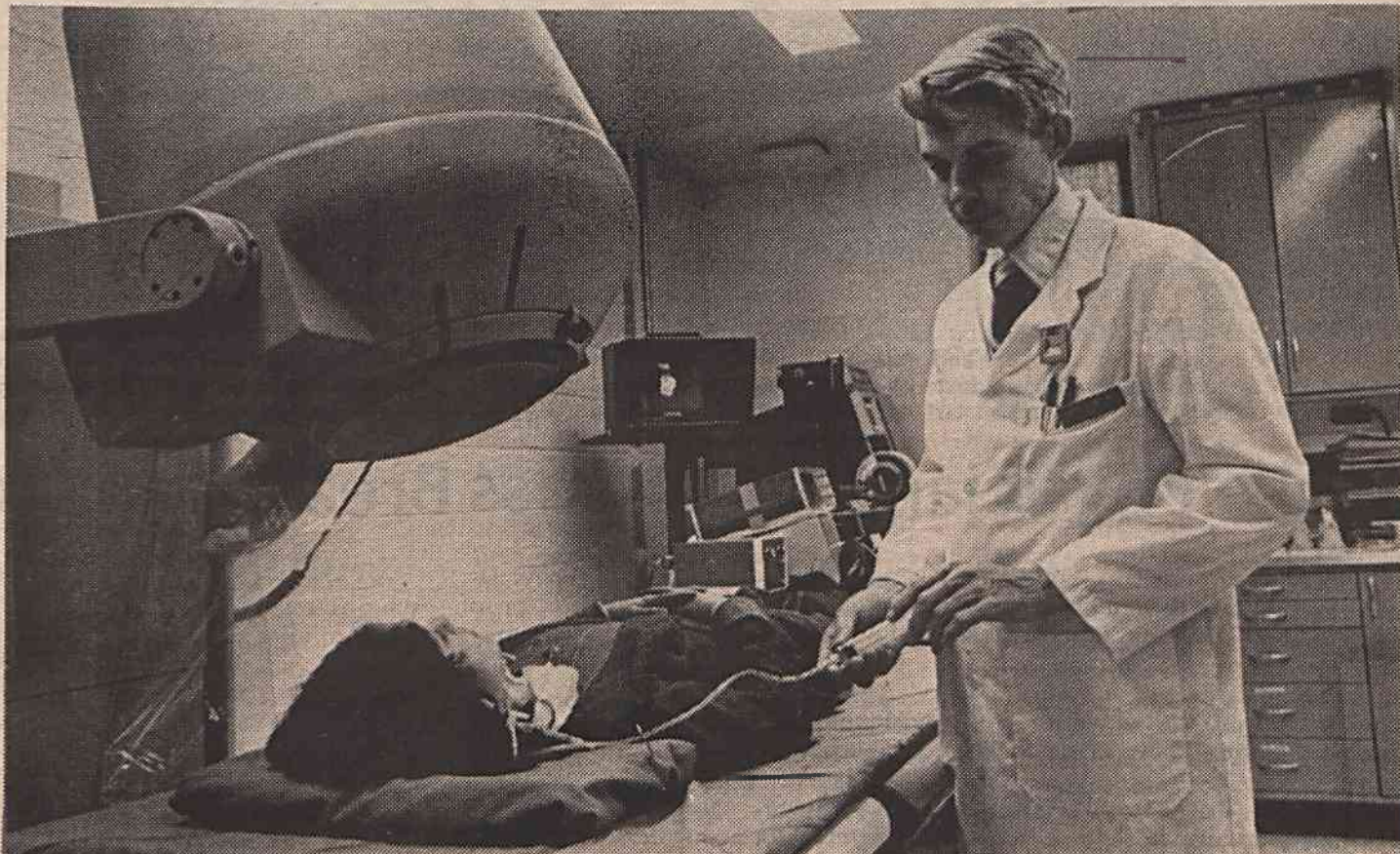
Right now he's lying as still as possible. They've brought the gamma camera's collimator—a lead plate with holes in it to direct the rays—down to a point over the sternum, and his bare chest is lying there vulnerable, waiting to be invaded by a radioactive isotope. The doctor has told him that if they are to get a good reading he must not move.

The doctor hovers over him, checking the position of the detector. He wants to find out if the impact of the steering wheel has resulted in damage to the man's heart and he is careful to get the alignment exactly right.

The procedure goes swiftly. The needle is inserted into the vein in the man's neck and the radioactive fluid is forced into the bloodstream, flowing toward the heart.

Moving Image

On a color television screen at the foot of the bed the flow shows up as a moving image—like syrup being poured—and you can follow it as it makes its way into and through the



INJECTION—Dr. Robert H. Jones demonstrates the procedure for injecting the radioactive isotope into a vein in the patient's neck. From here it flows through the superior vena cava into the heart where its course is picked up by the gamma camera. The barrel-shaped device at left houses the detector which, when in use, is centered over the patient's heart.

sections of the heart and then out the other side.

The colors on the screen range from yellow—the hottest—to reds, then blues and finally the cooler greens, measuring the intensity of the isotope.

Then, 12 seconds later, the isotope has completed its course through the man's cardiovascular system and the image is gone as quickly as it came. In 60 seconds the episode is over and the man is out from under the detector.

Wealth of Information

The entire procedure—from preparation of the patient to completion—has taken less than five minutes. And during that time a wealth of information about the man's heart and great vessels has been permanently recorded for use by his doctors in determining the best course of treatment for his recovery.

And, except for that prick in the neck, it has been totally painless.

What has occurred is a demonstration of a highly sophisticated heart evaluation technique utilizing the radionuclide gamma camera, which is the focus of a major research effort here. Although it is not yet in clinical use, its development has reached the stage where it is believed to be only a matter of time until it takes its place alongside other established diagnostic methods.

NIH Supported

Dr. Robert H. Jones, an assistant professor in the Department of Surgery, has been the man behind

the gamma camera. Supported by grants from the National Institutes of Health and other governmental and private sources, he has worked closely with the company that developed the component parts, and he has devised the computer programs now in use.

The research has been carried out in collaboration with the Division of

Nuclear Medicine and the Division of Cardiology.

"What we're doing," Jones said, "is looking at total heart function, at just how the heart is working. We're studying what happens with each beat."

To do this effectively, he said, it is necessary to take repeated readings

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Ruffin Dedication Planned Today

A ceremony in the Hospital Amphitheater beginning at 4 p.m. today will mark the dedication of the Julian M. Ruffin Clinical Suite.

The clinical suite, located on the ground floor of the Blue Zone, will carry the name of one of the original faculty members here and a leader in the field of clinical gastroenterology.

Though retired from the active faculty at Duke, Dr. Ruffin is in private practice in Durham and is a consultant to both Duke and Watts hospitals.

At this afternoon's ceremony, Dr. James Wyngaarden, chairman of the Department of Medicine, will give welcoming remarks. Speaking for the medical staff and Dr. Ruffin's colleagues will be Dr. Eugene Stead. Dr. David Cayer of Winston-Salem will speak for former students.

The dedication will be by Dr. William G. Anlyan, vice president for health affairs, followed by a response from Dr. Ruffin.

Smoking To Be Prohibited Except in Designated Areas

Smoking will be prohibited in the Medical Center, except in certain specified areas, beginning Monday, April 5.

"The policy is primarily a product of the widespread recognition that nonsmokers have a right to a smoke-free environment as much as smokers have a right to smoke," explained Richard H. Peck, administrative director of Duke Hospital.

Smoking will be allowed only in clearly marked "Smoking Permitted" areas, including the main hospital lobby, satellite waiting rooms, lounge areas, public toilets, cafeteria and dining areas, private offices, locker rooms, and living quarters.

Smoking is prohibited in all other areas, including corridors, patient examination and treatment rooms, elevators, nursing stations, stairwells, laboratories, storage areas, food preparation areas, libraries,

classrooms, conference rooms, mechanical/woodworking shops, and lecture halls.

Signs will be posted at all major entrances to the medical center and throughout the building as reminders of the policy.

"Institutionally, we have not taken a stand against smoking," Peck said. "What we've done is to try to limit the smoke to which non-smokers and patients are exposed."

"One of the reasons for the policy is the recognition of the rights of patients to avoid being put in an area where they can't escape smoke," he said. "If smoking is permitted in corridors, the patients have no way to escape it. When they're sick, even smokers often find smoke to be a disagreeable element in the environment."

Other reasons for the decision to implement the policy were safety

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