

# cardiology notes

Gathered at the annual scientific session of the American College of Cardiology in San Francisco

## STATISTICS

### Immigration troubles hearts

Heart specialists, in their continuing search for clues that will point out a potential victim before the heart attack occurs, have come up with some seemingly inexplicable statistics.

One of these shows that immigrants from one country to another seem to suffer two or three times the heart attack rate of their countrymen who stay at home.

It is known, for example, that Japanese who emigrate to Hawaii have more attacks than native Japanese, and those who come to America have a higher rate still.

Studies of a group of Irish who settled in Boston show that they have about three times the heart attack rate of Irish who remained home. Diet made no difference, because they ate practically the same food as they ate at home.

Dr. Meyer Friedman of San Francisco believes that personality, particularly an aggressive one, may be responsible for many heart attacks. The kind of people who emigrate, he pointed out, are usually the hard-driving kind who feel they must seek greener pastures in another land. Once having landed, he said, they will usually work harder than most people to achieve their goals. In addition, the very act of immigrating to a new, and sometimes strange foreign country, is an extremely stressful procedure.

Many immigrants make good in their new countries, he said, but the price they pay is an elevated incidence of cardiac attacks.

## DIAGNOSIS

### Hands clues to hearts

The condition of the human hand can often offer clues in the diagnosis of heart disease, according to Dr. Mark E. Silverman of the Emory University School of Medicine in Atlanta, Ga.

"A defect or disease can sometimes not be diagnosed by listening to the heart, yet leave its imprint on the hand," he declares.

Dr. Silverman and R. J. Willis Hurst, also of Emory, presented a paper entitled "The Hand and the Heart."

"A heart attack is often followed by swelling, stiffening and painful discoloration of the hand," Dr. Silverman says.

"If the attack is not noticed, a small scar on the palm of the hand, left when the swelling recedes, may give a clue to the doctor that there has been an attack."

He emphasizes that this does not mean the public should start studying their own hands for evidence of previous heart attacks.

"One has to put many clues together for a clinical diagnosis," he points out.

## ULTRASONICS

### Peering through the skin

Machines using extremely high frequency sound waves are being developed at the University of Washington in Seattle, to enable a physician to look inside a patient's flesh.

Dr. Robert Rushmer, director of biomedical engineering at the university, reports his group is experimenting with devices which will be able to detect such anomalies as atherosclerosis.

The ultrasound passes through the thickened walls of an artery where it is coated with fatty substances at a different intensity than it does through the normal part of the artery, he says. "Today, we can get information about the surface of the moon, but we have trouble getting data from one-eighth inch under the skin.

"At present, physicians are highly reliant on their five senses in diagnosing disease."

Many electronic diagnostic tools of this nature could have been developed a long time ago, Dr. Rushmer claimed, were it not for a "communications gap" between doctors and engineers.

## ARRHYTHMIA

### Carrier landings worse than combat

The hearts of naval pilots beat faster when they are coming in for a landing on the deck of a carrier than when they are engaged in combat with the enemy.

This revelation comes from Cmdr. Hugh S. Pratt Jr., chief of medicine, Naval and Aerospace, Pensacola Naval Air Station.

Dr. Pratt reports that telemetering of pilots' hearts show that they beat fastest as they approach the carrier deck, a difficult way to land a plane at best.

Fatigue is the main combat problem for the hearts of pilots, Dr. Pratt says. When they get overtired, the aviators can develop arrhythmia; the heart beats too fast or too slowly, and cannot respond quickly to natural stresses.

He said the navy's program for examining the hearts of pilots is much more stringent than that for commercial aviators.

## DOPAMINE

### Clinical drug tests urged

The Food and Drug Administration last week was to be asked to release the drug dopamine for clinical tests.

Dr. Eliot Corday of the University of California School of Medicine, Los Angeles, said that the drug, related to adrenalin, may make much heart surgery unnecessary. Dopamine steps up heart action and expands blood vessels.

16 march 1968/vol. 93/science news/271