

October 13, 1980

News

The University of Texas Health Science Center at Dallas
5323 Harry Hines Boulevard Dallas, Texas 75235 (214)688-3404

CONTACT: Bob Fenley
Office: 214/688-3404
Home: 214/352-2502

* * * * * New drug investigated in
borderline hypertension.

DALLAS--Minoxidil, a powerful new drug that has been valuable in treating severe high blood pressure, now is being tested on a benefit/risk basis for a much larger population who have only mild hypertension but who, nevertheless, may wind up in mortality tables.

In an article in the Oct. 16 "New England Journal of Medicine" Dr. William A. Pettinger details the action of Minoxidil in treating patients with such severe hypertension that removal of kidneys was the only other alternative.

Dr. Pettinger, director of the Division of Clinical Pharmacology at The University of Texas Southwestern Medical School at Dallas, reports on the drug, in general use for only a year after an 11-year trial period. Minoxidil dilates blood vessels; activates the peripheral nervous system to trigger increased release of the important kidney hormone, renin; increases heart rate and output and increases release of another important hormone, norepinephrine, from sympathetic nerve endings.

Some side effects have been noted, and while most can be countered with additional drugs, one--increased hair growth--has been a negative factor--especially with women, reported Dr. Pettinger.

"Unfortunately, this problem is so great that two of our patients (one 19 years old and the other 23) died of hypertensive renal complications within four months of discontinuing minoxidil, which had previously controlled their severe hypertension very well," wrote Dr. Pettinger in the journal article.

Despite this problem, Minoxidil shows promise as an agent capable of reducing the blood pressure of a "borderline" hypertensive population.

"A lot of clinical hypertensive research in the next five years will address just how much that pressure should be reduced," said the researcher in a Dallas interview.

Normal blood pressure generally ranges from 65 to 80 diastolic (the pressure between heart beats) and from 105 to 135 systolic (the pressure during the heart beat), according to Dr. Pettinger.

The diastolic pressure is considered the most important of the two figures and a reading of 90 has generally been accepted as the "borderline" where treatment should begin for high blood pressure.

"Although we can't predict in any individual whether he or she would have a heart attack, stroke, dissecting aortic aneurism or peripheral vascular problems with moderate hypertension, life insurance statistics clearly show the range between 90 and 70 diastolic offers problems," said Dr. Pettinger.

For instance, he said, hypertension is a factor in kidney failure and "we're pouring great sums of money into dialysis today. At a cost of between \$20,000 and \$30,000 a year per patient for dialysis, it's expected we'll be spending more than \$2 billion on this procedure by 1984."

"It's as if you had decided a number of years ago that the only way to defeat polio was to invest huge sums of money in the development of better iron lungs."

-- over --

2 pettinger

Thus an important target to reduce dialysis cost is to find the optimal degree of blood pressure reduction to prevent progressive renal damage using agents such as minoxidil, he concluded.

Dr. Pettinger currently is doing research on the complicated relationships involving neuroendocrine regulation of the heart, blood vessels and kidneys. His investigations of minoxidil are supported by the Hypertension section of the National Heart, Lung and Blood Institute.

##

Tear Sheets Appreciated

DISTRIBUTION: AA,AB,AC,AF,AG,AH,AI,AK,SC