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'Dramatic' Treatment For Obesity; Diseased Patients Test Starvation Diet

Prolonged starvation can be safe and effective dietary therapy for extremely obese patients—perhaps even for those with certain conditions including diabetes, osteoarthritis, and coronary arteriosclerosis, a US Air Force study of 25 patients suggests.

Unlike the restricted patient-selection of most previous studies, clinicians at the George Air Force Base, Victorville, Calif, included in their investigation seven obese persons with hypertension, psoriasis, bronchiectasis and bronchitis, osteoarthritis, hypothyroidism, insulin-controlled diabetes and cholelithiasis, and healed duodenal ulcer. Another patient had a combination of coronary arteriosclerosis, hypertension, osteoarthritis, Paget's disease and Parkinson's disease.

A total of 25 patients, who, with the exception of four, were at least 100 lbs overweight, fasted for as long as 84 days. Their weights ranged from 177 to 360 lbs initially, and most had been unable to lose weight on previous diets.

"The only conditions contraindicating admission to the study were a history of gout, diabetes with ketosis, or an acute cardiovascular incident within the past two years," Capt Robert M. Karns, USAF (MC), told the annual AMA convention in Chicago.

A multiple vitamin preparation was the only medication taken throughout the starvation period by every patient. However, when chemical imbalances occurred periodically in some patients, various mineral preparations were given.

Usually, when patients were within approximately 50 lbs of desired weight, starvation was stopped, and a 1,000 calorie diet begun gradually which was sometimes reduced to 600 calories.

"Sixteen patients completed the starvation program and were unequivocally successful with weight losses ranging from 40 to 100 lbs. Based on a two month to 1½ year followup, Dr. Karns said that eleven of these had no difficulty continuing weight loss on controlled diets as outpatients. The other five (of the 16) temporarily gained weight after starvation due to a reversal to previous eating habits.

Of the remaining 9 patients, six discontinued the starvation program voluntarily due to reasons such as interference with work. (None of these patients, however, found the regimen psychologically unacceptable, he said.) One patient was asked to leave the program because she was suspected of eating. Another patient had to withdraw due to a transfer in residence.

"In only one instance was a previous or current illness a cause for removal from the program," Dr. Karns said. This was the patient with history of peptic ulcer.

As with the other patients with constitutional disorders, Dr. Karns and his co-worker, Capt John J. Van Dyke, USAF (MC), placed this patient on the starvation diet because the patient requested a trial on the diet.

After 11 days on the diet and a 20 lb weight loss, severe symptoms of gastritis developed. After resuming a normal diet the symptoms disappeared. Subsequent followup indicated no evidence of ulceration, and the patient has had no further gastric problems.

Conversely, Dr. Karns noted marked improvement in two patients with overt illness prior to beginning starvation. One was a 48-year-old diabetic who required weight reduction in order to undergo a cholecystectomy. The woman, who weighed 265 lbs before starvation, had been maintained on 25 units of insulin daily for eight years. After she was withdrawn from insulin her fasting blood sugar was 240 mg%.

The woman lost a total of 47 lbs after starving for five weeks. She then went on a 1,000 calorie diet for two weeks prior to surgery. She lost another 17 lbs within three months post surgery on a 600 calorie diet.

"To date the patient is being managed successfully on a 1,000 calorie diet, her fasting blood sugar level is 120mg%, and to date she is taking no insulin," Dr. Karns said.

"Also quite striking was the improvement in the 60-year-old woman with Paget's disease, Parkinson's disease, coronary arteriosclerosis, osteoarthritis and hypertension," Dr. Karns said. She is 5 feet tall and weighed 177 lbs when the diet began.

During the starvation period she was treated with oral potassium supplement for five days due to a decrease in serum potassium; her fluid intake was restricted due to decreased serum sodium; and she was given probenecid for four days for elevated uric acid levels. Her serum acetone was slightly positive for most of the starvation period.

The patient lost approximately 31 lbs during a 52-day fast, then began a 1,000 calorie diet which was eventually lowered to 600 calories.

"The patient has had no trouble maintaining her weight at 125," Dr. Karns said. "She appears and feels well. Her blood pressure is approximately 140/100 without any medication. She again takes coronary vasodilators, but has no angina, where she did have periodic episodes previous to starvation. Furthermore, the arthritic pains in her knees have markedly diminished," he said.

Dr. Karns said the study suggests that starvation dieting has the following advantages:

- As the patients lose weight rapidly, they are encouraged to continue the starvation diet, and later, to maintain their weight loss, or to continue losing weight with low-calorie diets.
- Anorexia usually occurs within the first 36 hours of the diet.

In respect to a report that complete fasting causes a loss of less actual fat and more lean body tissue than in low calorie diets (JAMA MEDICAL NEWS, 192:33 [April 5] 1965), Dr. Karns commented:

"We feel that prolonged starvation eventually results in a true loss

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