

Editorial

Obesity—Some Considerations of Treatment

OBESITY, because of its frequency, predisposition to serious complications and, in general, its inadequate control, is one of the greatest challenges in the practice of medicine. Of 292 patients with intractable obesity examined on my service at the Pennsylvania Hospital 40.4 per cent had diabetes (25.3 per cent were known diabetics and 15.1 per cent had diabetes detected for the first time). In addition, 6.8 per cent had subclinical diabetes as detected by the cortisone glucose tolerance tests.

Minor degrees of overweight in well motivated patients can be corrected readily by (1) reducing the caloric intake, (2) increasing physical exercise, (3) correcting faulty eating habits, and (4) indoctrinating patients thoroughly in the means of eliminating "obesity hazards" and their prevention. One day of total fasting in seven, or one day in ten, permits the intake of a more liberal diet during non-fasting intervals. This measure is well tolerated and has proved to be successful in patients who are unable to adhere to a low calorie diet.

In intractable obesity the hazards are of great significance. In this class 318 patients—most of whom have been treated in the past six months—claimed that they did not respond satisfactorily to the usual attempts to correct overweight. For these patients, we make it a rule to check each one for signs of overt or preclinical diabetes or gallbladder disease.

Of forty patients weighing more than 300 pounds, 60 per cent had cholelithiasis.

Treatment of patients with intractable obesity involves:

(1) *Periods of total fasts, usually seven to fourteen days.* During this period, while the patient is hospitalized, the intake of non-nutritional liquids is permitted as desired. However, salt is eliminated entirely so that patients who are prone to retain abnormally large amounts of salt and water can be detected; such patients may lose up to 6 to 10 pounds in the first twenty-four hours of fasting. In these patients, a moderate restriction of salt indefinitely is advised. This measure tends to neutralize the retention of excessive amounts of salt and water and the subsequent increases in weight which occur even when patients are receiving submaintenance diets.

The anorexia that prevails during total fasting is attributed to hyperketonemia, which is a result of the fast; deprivation of salt; and possibly increased lipid transport, which must occur even though the total serum lipids do not exceed normal concentrations.

(2) *Group instruction and conferences with physicians and dietitian.* Four periods of group instruction are given per week during the period of hospitalization. This measure has brought about a significant improvement in our results. Patients are told to expect a prompt gain in weight of 4 to 8 pounds after resuming

low calorie diets (due to an accumulation of water) and that the weight gain will be greater if salt intake is not restricted.

Patients are taught that the advantages of losing weight are cumulative over the months and that it is not the immediate weight loss that is of most importance, but rather that achieved over a period of six months, one year, or longer. They are also taught that the treatment for obesity is a long-term contract. We compare it with the long-term treatment for tuberculosis that was the rule five years ago, a rule that patients accepted.

Nutritionists, physicians and patients raise the question of protein loss during the period of fasting. Of course there is some breakdown of tissue protein, but this is relatively inconsequential in such a short period. In obese subjects, protein breakdown—using the nitrogen output in the urine as an indicator—is but a small fraction of that which occurs in non-obese subjects.

(3) *Instruction on discharge.* This involves training in dietary principles for the individual patient—for women, diets usually contain from 1,100 to 1,500 calories; for men, from 1,500 to 1,900 calories. Supplementary polyvitamins are prescribed. One fast day per week—the day of least physical activity—is advised. On this regimen, a long-term average reduction of 1.5 to 2.5 pounds per week may be anticipated.

Patients who are discouraged with losses at this slow rate are reminded that this amounts to a loss of 78 to 104 pounds per year. For those who are extremely obese, two fast days in ten are recommended.

(4) *Exercise.* Beyond walking on the level, physical exercise is not encouraged in the severely obese patient, but as weight is reduced the patient is urged to walk grades, steps and with increased vigor. Patients weighing more than 300 pounds initially, have eventually resumed competitive sports, notably golf and swimming, with advantage. As the patient approaches the weight goal set, intensified exercise simplifies the maintenance of the reduced weight.

(5) *Follow-up.* Regular follow-up contacts are expressions of continued interest on the part of the physician and are reassuring to the patient.

Finally, the control of obesity promises to be a life-time project—easy for those who are well motivated and well trained, and difficult for those who do not enjoy these advantages and especially for those who are emotionally disturbed.

GARFIELD G. DUNCAN, M.D., *Director
Medical Divisions of the Pennsylvania Hospital
and of the Benjamin Franklin Clinic
Philadelphia, Pennsylvania*

