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NUTRITION

Obesity: Psychiatric plus Dietary Approach to Its Treatment

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OBESITY INVARIABLY IS AN IMBALANCE between energy intake and output, resulting in a storage of inert fat in the body. Obesity adds to the burden of normal physiological functions of the body and thus becomes a menace to good health.

The most important reason to keep a normal weight is to prevent a coronary attack. It is an established fact that fat people get hardening of the arteries earliest. The fat in the bodies of obese people causes an increased amount of fat in the blood stream. This fat is called cholesterol and is determined by tests in the laboratory. This blood fat or cholesterol, when in excess, deposits in little crystals inside the linings of the arteries and remains there until changes take place in it and become calcified. The result is hardening of the arteries in obesity. The establishment of coronary disease follows the same pattern; the calcium that follows the fat crystal deposits into the coronary arteries causes their hardening, and nourishment to the heart cannot get through.

When there is a general deposit of calcium throughout the arterial system in the body, the obese victim tends to develop hypertension. If the obese person will reduce the weight, while there are cholesterol or fat deposits in the arteries and before calcification has taken place, the blood pressure will usually return to normal simultaneously with weight loss. There is some truth in the statement that for each pound of excess weight lost, the blood pressure goes down one point. The presence of fat not only adds to the mechanical burden of the heart, but also predisposes to arterial degeneration, which is of more importance than the high blood pressure.

A second reason for wanting a normal weight is that we might be admired by our fellow man. The beauty establishments will sometimes succeed in reducing weight, where a physician may have failed, due to their play-up to the aesthetic. The patient is often given daily regular excercises and frequently with music accompaniment. This is effective only through substitution of interest in excercise and the transfer of interest away from food. This procedure keeps the obese person busy even though the actual weight loss comes not from the excercise but from the diet that is supplied.

AN APPROACH TO THE PROBLEM OF OBESITY

With careful psychiatric investigation of the cause for over indulgence in food, a great majority of patients reveal an inability to cope with an environmental stress. This results in a nervous sensitive stomach that gives the patient a feeling of gnawing sensation or quivering weakness which is pacified only with more food. Often a blood sugar determination discloses a low sugar level. Their nerves burn up their sugar; therefore, the nervous appetite demands sweets. Sugar satisfies and calms the hyperactive stomach, but is absorbed quickly and the same vicious cycle repeats with the increasing demand for food.

In the past, some clinicians have used the belladonna group of drugs to control hyperactivity and excessive gastric secretions to check a false appetite. There is a fallacy in such direction of treatment, in that it interferes with nature's production of digestive juices which may cause irreversible damage and stomach trouble.

Where there is a normal secretion of digestive juices, with a normal increase in their flow as a direct response and parallel with the emotional disturbance, why not aim to help that patient's ability to accept life or guide him into a better environment?

DIETARY MANAGEMENT OF OBESE PATIENTS

In planning the diet and any medication required for the treatment of obesity, a first consideration is to determine the causes for the obesity; what is their importance, and how the individual is reacting to his environment. The facilities of the laboratory are utilized for basal metabolism determination, blood chole-

sterol, differential blood count, urea and chloride excretion levels.

The phlegmatic, lazy person who sleeps long and more soundly may be benefited by medication to stimulate the thinking part of the brain. In a small percentage of cases these drugs seem to help to diminish the appetite. The obese patients who do not show a lazy attitude and sleep poorly may acquire a nervous temperament and an inability to cope with an environmental stress. These unhappy, emotionally disturbed people almost invariably suffer with nervous stomachs.

To maintain health while losing weight, it is essential that the actual weight loss must come from the loss of fat and at the same time the tissues that build muscle and the other organs must be well supplied and replaced.

In the management of over 500 cases of obesity, gratifying results have been obtained by curbing the appetite, not by drugs, but with the use of an intact protein combined with carbohydrate.* The intact protein-carbohydrate combination used contained quality proteins of high nutritive and biologic values with all of the essential and non-essential amino acids. Each ounce represented 61.25% of protein derived from milk, milk sugar and aromatic agents. The salt content was negligible and fat content 0.25%. A heaping tablespoonful was equivalent to approximately 16 grams of the material and made available about 55 calories. The intact protein carbohydrate combination solicited patient acceptance because of its pleasant flavor and being in a powdered form, it could be readily suspended in milk or water.

The diet must be calculated so that there are at least 1 1/2 grams of protein per kilo gram of body weight to establish normal. There must be sufficient carbohydrate or sugar to burn up the fat that is being lost. If the carbohydrate is insufficient, after two or three weeks of dieting, acetone will be found in the urine, indicating the patient is ill and has an acidosis. The diet must be arranged suitably to prevent this condition from occurring.

The rationale of treatment is based on the need for proteins to maintain proper cellular integrity, repair of tissues, to promote healthy glandular secretions, to build stronger organs and muscles and maintain normal blood proteins.

It was found that a heaping tablespoonful of the intact protein-carbohydrate combination taken a half-hour before lunch, dinner and at bedtime would "quiet" the stomach apparently as a result of its bulk, and more importantly because proteins remain longer in the stomach, absorbed more slowly and the sense of fullness remains longer. Excessive appetite is satisfied, fatigue is prevented and a controlled planned amount of food is easily managed. In this way, normal functions are constructively improved and the appetite is gratified.

* Supplied as Protinal by The National Drug Company, Philadelphia, Pa.

PSYCHIATRIC MANAGEMENT OF OBESITY

In many patients a plan is followed through the use of a diagram first published by Cabot many years ago. This is a cross with a balance of emotional health when each of the four legs, Love, Worship, Play and Work, are equal. We face the patient's life factually, and where there is a wall that appears unsurmountable, we stop banging the patient's head against it, or bemoaning or weeping over it which, we soon learn, is wholly self-destructive.

We plan with the patient any possible means of breaking this obstacle — of removing it. Often, this can be done with great patience on the part of the physician, plus a willingness of the physician to devote much time and expend a great deal of energy. When an obstacle is apparently unsurmountable, then we learn how best to live with it there, and develop a path in life to by-pass such an obstacle.

There are times when some medication is needed to overcome depression and induce a favorable effect on mood and well-being. The patient must be given a clear insight into his problems, and when needed, such help is given to help him become more active physically and mentally, and more prone to exert self-discipline and will power in eating habits and in following directions of the physician.

DISCUSSION

In the management of obese patients, my gratification comes through teaching the patients to live with complacency within themselves. Environmental obstacles are viewed, removed when possible or accepted with a healthy mind, and whenever possible, new interests are created or developed.

We learn to live today and recognize the futility in lamenting about yesterday, a day always gone and always a past. By concentrating on making today a constructive day we protect tomorrow. We stop looking over the horizon. No one has ever touched a horizon; it is always ahead, unreachable as is tomorrow. Most unhappiness with the disturbed body functions occurs from fear and most fear is not for the moment, but for the time and days we have not yet reached. By controlling our conduct today, we best prepare for tomorrow.

This part of obesity treatment; the removal of obstacles, or the learning to get over or around a hurdle is started after nervous exhaustion is controlled with the pleasant tasting intact protein carbohydrate combination in powder form.

Several cases selected at random are presented showing the control of obesity through adjustment of life today and the improvement in physical health.

Each case had a complete medical survey. Basal metabolism, electrocardiograms, blood cholesterol levels, complete blood counts, urine analysis, gastric

analysis and X-ray studies. Space will not permit a complete report of the laboratory data.

CASE REPORTS

Case No. 1, Female, age 50, married, first seen 6/22/46. **Chief Complaint:** Pain in right heel with inability to walk for two months. Arthritis deformans of both hands. Stiffness in both knees. Pain in both hips, particularly at night. Sleeps poorly. Eats "lots of Candies and Sweets."

Physical Examination: Height 62 inches; weight 200 1/2 lbs., blood pressure taken at beginning of examination and after consultation was 210/110. Internal examination showed senile changes following menopause three years ago.

Treatment: Prescribed a salt-free intact protein-carbohydrate (powdered) combination, one tablespoonful in milk 1/2 hour before lunch, dinner, and bedtime. Management of arthritis through combined obesity diet, relief of anxiety that she would become bedridden; ovarian medication to help in arthritis as well as an aid to better, restful sleep. Short wave therapy; vaccines, attention to bowels, and salicylates for relief of arthritis pain. **Progress:** The influence of the treatment on weight and blood pressure is given in the following summary:

Date	Weight	Blood Pressure
6/22/46	200 1/2	210/110
7/2/46	195	178/96
7/17/46	186	152/88
7/31/46	179	142/92
8/14/46	174 3/4	148/84
9/5/46	167	138/80
2/13/47	147 1/2	120/80

On 7/10/46, ovarian medication was ordered taken every other night instead of every night. Internal examination now normal. Arthritis less painful to the extent the patient can now use bus to get to office.

On 2/13/47, heart sounds were of good quality, rate was 62. Ovarian medication only twice a week. Patient walked two miles without any apparent discomfort.

The patient was last seen 1/15/48 at which time her weight was 140 3/4, blood pressure 130/88 and she had no complaint. She was instructed to take the intact protein carbohydrate combination before lunch and dinner should any indication of nervousness appear. Sleeps well; walks freely without complaint. She had weighed 137 lbs. which I had instructed her to consider her low level and increase her food intake sufficiently to reach a top morning weight of 140 lbs. Relief of arthritis and blood pressure reduction paralleled the reduction in weight.

Case No. 2, Male, a physician, age 47; first seen 12/3/47. **Chief Complaint:** "Acute indigestion." Local physician diagnosed coronary disease. Severe pressure in precordial area.

Physical Examination: Weight 165/ 3/4 — height 63 1/2 inches. Had so much abdominal distention it was not possible to outline or palpate the liver. Definite osteoarthritis in fingers and knees. Heart sound snapping; murmur at apex. Recognized a nervous response to business anxieties and a wife always nagging and envious of wealth.

An ECG — Shows definite early signs of myocardial damage. B. M. R. (—) 24; blood cholesterol 299; segmented 38%; lymphs 43%.

Treatment: Prescribed a salt-free intact protein carbohydrate combination in milk 1/2 hour before lunch, dinner and bedtime and gave the patient an obesity diet. A mild sedative, thyroid, given to control undue nervousness. Efforts made to relieve him of his anxiety complex.

Progress:

12/3/47	165 3/4
12/13/47	158 3/4
1/17/48	150 1/2
2/21/48	146

On 1/17/48, all medication with exception of B complex was discontinued.

On 2/21/48, the bood cholesterol was 144; no complaints; digestion apparently normal, no fatigue present, daily bowel function. The patient was advised to consider 146 lbs. as low weight, and to increase food intake to gain with top morning weight of 150 lbs.

Examination on 3/20/48, the weight was 144 1/2; the patient felt wonderfully well, having no complaint of arthritis pains, indigestion or fatigue.

Comment: Relief of anginal pain paralleled reduction of blood cholesterol level.

Case No. 3, Female, age 58, — W.

Chief Complaint: Severe headaches, constant heartburn, abdominal pains, indigestion. Not interested in losing weight. Exhaustion from poor sleep.

Previous History: Treated for past 20 years for chronic gall bladder disease, arthritis, anemia and high blood pressure. Thyroidectomy 11 years ago. Has been under medical care on and off for reduction of obesity for 20 years and believes she knows she cannot lose weight.

Examination: X-ray examination of gall bladder showed filling defect of gall bladder but no stasis. ECG showed heart block; B. M. R. + 11 to + 28; blood cholesterol normal; Westergren sedimentation rate 22; hemoglobin persistently low with normal R. B. C.

It was not possible to obtain specimen for gastric analysis, since the mention of this procedure caused a fantastic elevation of her blood pressure with severe headache and vomiting resistant to medication for several days. Emperically, hydrochloric acid was given resulting in an aggravation of the heartburn and soda bicarbonate relieved it. She was placed on frequent protinal feedings.

The cause for exhaustion resulting from poor sleep and fear of sleep due to frightening dreams was determined. She had no relatives and few friends. She has a very highly emotional, excitable husband, completely absorbed in the differential respect and flattery given to an outstanding and successful professional man. She felt outside the needs for his life's pattern. She was alone and fearful that with intensity of work and his excitability he will suddenly die. She lived always "tomorrow and tomorrow was dreaded."

Treatment: With intact protein-carbohydrate combination, high mineral and vitamin diet, the patient's weight in one year dropped to 131 lbs. with blood pressure 134/74.

Discussion: Body functions were restored to a better balance by maintaining a comforting sensation of stomach fulness with Protinal.

At each visit much time was spent teaching her to concentrate on living each minute at a time, and each day at a time. Without mentioning weight loss and obesity, because of her conviction that she cannot lose weight, she steadily lost 40 pounds and in the meantime became intensely interested in her new attractive appearance. Her threshold for pain was raised so that arthritis pain, which in the past, was felt keenly and made her more nervous and eat more sweets followed by indigestion and the vicious cycle of more arthritis, now, was seldom mentioned.

The arthritis was helped by better digestion, loss of weight, interest in her personal attractiveness and much more physical activity that gave better circulation to her joints.

Case No. 4, Female, age 48 — W.

Chief complaint: Obese since 1925 when she gained 20 pounds in a few months. Dyspnea, palpitation and dizziness are other complaints. Pain in knees and some stiffness in fingers in the morning.

Previous History: Has been taking Thyroid one grain daily for 11 years.

Examination: January 1948; Weight 175 lbs.; Height 64 inches; Blood Pressure 97/62. ECG showed a partial first degree auricular — ventricular block with prolonged conduction time. Heberden's nodes on fingers. Blood cholesterol 216. Sedimentation Rate 30 Westergren.

Treatment: Psychiatric approach to her emotional problems and getting her cooperative interest along with sufficient thyroid to restore glandular function and proper diet supplemented with protinal resulted in a gratifying response of the patient. Last visit June 1948. Weight 144. B. P. 112/70. Blood cholesterol 132. Sedimentation rate 10 Westergren.

Discussion: The patient's father was a dominating manic with a violent temper. The mother was an unintelligent, beautiful woman with a good natured disposition. Self-expression was never permitted in the patient's childhood. She graduated from a leading woman's university. She always had a sense of insecurity and inability to compete. Personality consultations revealed her fear that other people would learn of her unhappy childhood and recognize her own incompetence, so she withdrew from any gainful occupation.

The patient is married to a clear, precisely, thinking successful professional man who expresses admiration for accuracy and beauty. They have two children; one has her family's emotional pattern. This increases her own nervous tension through guilt, so that she laments at her failure to control her emotional unbalance which she recognizes in this child. This is a case of self-destruction. Emotionally, she was still a child and had never reached adult life. Mentally, she is very keen, intelligent and aware of and concerned by worldly events. She is helpful and befriends those people who come within her sphere of influence. Her childhood emotions conflict, confuse and dominate her conduct, and her natural intelligence is surplanted by her confused early life.

The patient did not accept an existing tangible fact, recognize it, and finding it an obstacle to her happiness, "face it" and plan to remove it. Any obstacle to her was something to bemoan because she had no normal childhood.

We accepted each obstructing idea and enacted on the fact of its existence rather than the reason or the why of its presence. Then, what to do about it! If it was something not removable, we looked for other avenues of interest and concentrated energy on developing manageable interests. Life does not stop at obstacles; we live the day and awaken to another new day. She learned to accept the day's facts, and to close the door of the past for all yesterdays are gone and cannot be re-lived.

These ideas aroused her cooperative interest with energetic enthusiasm and self-confidence. She was helped by compliments received for her attractive figure, and happiness expressed in her face and manners.

SUMMARY

Over 500 patients were treated for obesity with an intact-protein, of high biologic and nutritive value, combined with carbohydrate, rendered palatable by its fine mesh size and excellent flavor. The psychiatric approach to the problem of obesity is also stressed; and the results indicate that the combined therapy tend to yield most gratifying results.

Nutrition Notes

Starvation and Inflation

India, on the very threshold of her new life of liberation, finds that the scientific viewpoint with respect to nutrition is under pressure from several angles. The indigenous systems of medicine, especially Vaidak, maintain respect for concepts which modern medicine discards, and these systems are still influential in the minds of many medical men in India. The first and foremost of the Vaidak tenets is the restoration and fostering of everything indigenous to the soil, and this has gripped the popular imagination partly because the indigenous remedies are cheap. The idea that remedies which are native to the soil will cure diseases occurring in those regions has for us in America today no more than a philosophic attraction, at best.

Secondly, the teachings of Western civilization with respect to nutrition have not, as yet, been thoroughly assimilated and converted into Indian terms. Finally, even where the modern concept of a balanced diet prevails, it is largely a counsel of perfection rendered sadly inadequate because of the lack of food and the exhorbitant inflationary prices demanded for even ordinary nutrients. In many instances there has been a 300 to 500 per cent increase in food costs and, not infrequently, insufficient rationing and profiteering.

In spite of a tragic food situation complicating the political turmoil of recent years, there is evidence of sound medical investigation, and a refreshing tendency on the part of physicians to "think things out for themselves." At the present moment, of course, the vital need is for more food and lower prices.

Pernicious Anemia

Recently Murphy (1) of Australia described a case, obviously one of pernicious anemia in a patient, who, while lacking the intrinsic factor of Castle nevertheless showed a definitely acid gastric secretion. His case, as reported, is a strong challenge to the ancient dictum that achlorhydria is constant and necessary to the diagnosis. Now Benjamin (2) of Brook-