



ANOREXIA NERVOSA

by M. B. Ahmed, M.D.

The recent death of the singer Karen Carpenter in February, 1983, at the age of 32, evoked an interest once again in the problem of anorexia nervosa and its young victims. Sherri Boone O'Neill, actor Pat Boone's daughter also had a similar condition. She wrote a book recently, *Starving For Attention*. Karen and Sherri both were raised in an unusually close-knit family with a tight control. Anorexics most generally are children of authoritative parents. Dr. Hilda Bruch, an authority on the subject and author of the book, *The Golden Cage*, describes anorexics as the relentless pursuers of excessive thinness. Anorexia generally entails directions to eat all but token amounts of food. When the urge to eat becomes overpowering, its victims willingly eat on a binge and purge themselves of the offending food by vomiting, and/or using laxatives.

Anorexia nervosa probably presents one of the most frequent causes of malnutrition and weight-loss in young adults living in developed countries. Anorexia probably was first recognized three centuries ago by Richard Morton and first described by Sir William Gull in 1868. Approximately one out of every hundred adolescents become anorexic each year. According to one estimation, there may be half a million or more victims in this country alone. White females between the ages of fifteen and eighteen, from middle and upper class families, are especially prone to become anorexics. The condition might be considered as a social disease of the 80's. Twenty years ago anorexia nervosa was seldom mentioned and today it is becoming epidemic in industrial countries. There is a much higher incidence of eating disorders among belly dancers, models, film actresses, jockeys, and others who have professional interests in staying slim. Nearly all researchers blame, to some degree, the correlation of thinness with beauty in our society.

The chief symptoms of anorexia nervosa are self-induced starvation, binge eating, and purging in women under the age of twenty-five. The normal weight loss is usually more than 20% of the original body weight. Anorexics also have a distorted body image, see themselves as fat though they are actually thin. They

have obsessions about food refusal, use diet pills, emetics, diuretics, and laxatives. Excessive activity and exercise occur in these patients. One of my patients recently gave me a history that she was weighing 140 pounds when she became conscious of her weight due to sarcastic remarks by her father and brothers. However, it was the death of her grandmother which triggered her weight loss. She had lost almost sixty pounds within six months. At the time of hospitalization her weight was 86 pounds. She had a dreadful fear that whatever she ate would make her fat. The nursing staff made the observation that she always filled her plate with food items but hardly took a bite. If she was forced to eat, she would go to her room and vomit. Describing her feelings, she mentioned that she always wanted to please others, never herself. Most probably, her losing weight was to please her father and brothers. Describing her body image, she mentioned "when ever I stood in front of the mirror I would see myself as fat." She enjoyed refusing to eat because it gave her a sense of autonomy. Amenorrhea, lanugo, bradycardia, and hypotension are generally present in the anorexic patient. Many patients report ill health, psychological impairment, shame, guilt, withdrawal, and isolation. It is estimated that about 4% to 10% of serious cases die. The cause of death most often is cardiac arrest, possibly secondary to hypokalemia.

Most patients' family members, and even health professionals and physicians have difficulty in recognizing and treating anorexia. Parents and families do not have basic information concerning eating disorders, including recognition of symptoms. The illness is usually not diagnosed until it reaches an advanced state when it is more difficult to treat. Recognizing and coping with anorexia is still in a pioneering stage with an enormous need for public education and training for health professionals.

The diagnosis of anorexia nervosa is usually suspected by the characteristic history. Published criteria includes the following typical findings:

1. Onset of illness under the age of 25.
2. Weight loss of at least 20% of the original body weight.
3. A distorted attitude and behavior toward eating food, weight and body image, denial of illness with a failure to recognize nutritional needs. Apparent enjoyment in losing weight with overt manifestation that refusal of food is pleasurable.
4. At least two of the following manifestations:
 - a) Amenorrhea, b) Lanugo, c) Bradycardia, d) Periods of overactivity, e) episodes of bulimia, f) Vomiting, g) Excessive use of diuretics and/or laxatives.
5. No known medical illness that could account for the anorexia and weight loss. No other psychiatric disorder which could account for the weight loss.

Hypotension, especially postural hypotension and hypothermia are commonly found. Depression and suicidal ideas are not uncommon in anorexic patients.

Laboratory findings: Most laboratory findings are nonspecific and are not unique since they occur in other forms of starvation and weight loss. Anemia, leukopenia may present in some patients, high level of cholesterol, blood urea nitrogen, and B-keratin are found. Low potassium and EKG abnormalities are not uncommon. Hypoglycemia may also be present. In spite of starvation ketonuria is not common.

Endocrine disturbances: The striking physical deterioration, anorexia, weight loss, and amenorrhea, suggests a possibility of panhypopituitarism. Endocrine studies did not confirm the presence of panhypopituitarism. The presence of amenorrhea in all women with anorexia nervosa lead to studies on hypothalamus, pituitary, and ovaries. It is now generally accepted that the primary defect is located in the hypothalamus which results in the impaired release of gonadotrophin releasing hormone—LHRH. The leuteinizing hormone LH, follicle-stimulating hormone FSH, which are released from anterior pituitary are also low. Thus, the ovarian failure is due to low gonadotrophin from anterior pituitary, which in turn is controlled by leuteinizing hormone, releasing hormone LHRH. With weight gain, the reversal of leuteinizing hormone abnormality occurs. Why the hypothalamus is unable to release LHRH in anorexia nervosa is not

known although abnormalities in Norepinephrine and Dopamine metabolism in the CNS have been postulated. The low estrogen level and failure to ovulate in anorexia appears to be solely due to gonadotrophin deficiency since ovulation can be induced by exogenous gonadotrophin or administration of LHRH for a long period. Plasma Cortisol levels are generally increased. Dexamethasone Suppression Test are abnormal in anorexics. It may or may not be related to an underlying depression.

Since the clinical and laboratory findings of anorexia nervosa are those of chronic starvation, it is important to exclude other disease states resulting in malnutrition. Chronic inflammatory bowel disease with secondary malabsorption, chronic infections, renal diseases, and malignant diseases are all associated with weight loss and nutritional deficiencies. Comprehensive examination and laboratory findings are important in excluding these diagnoses. Just like some physical illness, depression, and schizophrenia should also be excluded. Schizophrenic patients may refuse food because of psychotic delusions about food. The manifestations of thought disorders are not characteristics of anorexia nervosa. Similarly, the preoccupation with food and fear of weight gain is characteristic of anorexia nervosa and is not seen in patients with major depression. Various causes of amenorrhea should also be excluded. Particularly, if many of the classical findings of anorexia nervosa are absent and if the weight is borderline. Patients should be specifically asked about the presence of headache, visual disturbances, galactorrhea, degree of physical activity, and athletic involvement. Symptoms of androgen excesses, symptoms of hypothyroidism or hyperthyroidism, and the use of medications and drugs should be observed. Evaluation of amenorrhea in the suspected patients should include: Serum Prolactin Level, X-ray skull to rule out Pituitary

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A Youngster was telling his parents what he had learned in school about George Washington. "Was George Washington a soldier or a sailor?" asked his father.

The child thought for a moment. "I don't know," he said, "but I think he must have been a soldier. I saw a picture of him crossing the Delaware and any sailor knows better than to stand up in a rowboat."

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tumor and levels of F.S.H. and L.H. to exclude the possibility of primary ovarian failure.

Psychodynamic Factors: The patient comes from upper middle class, highly achievement-oriented family, that values slimness and physical exercise. Conflicts are generally found among parents or parents and children. Parents strive for personal fulfillment. The mother appears to become a willing accomplice in focusing the father's hostility on the child rather than on herself. She might be excessively involved with the child and may be overdirective, yet she fails to acknowledge the child's impending or beginning adolescent psychosexual development and separation from home and family. Unconscious, aggressive impulses are common in anorexic patients. These impulses, if experienced by consciousness, may disturb the appetite so that the patient will not grant himself the pleasure of eating.

Most commonly, parents are aggressive, dominant, insist on absolute obedience and respect. The development of anorexia may be conceived as an unrelenting "no" which is an expression in the form of refusal of food. Refusal to eat gives patient a sense of autonomy. Anorexic patients invariably show obsessional personality. Refusal of food and persistent preoccupation of being fat are good examples of obsessional behavior.

Treatment: Treatment of patients with anorexia nervosa is directed towards:

1. Recognizing and treating the medical complications of the disease and determining the need for hospitalization.
2. Obtaining appropriate psychiatric intervention.
3. Providing a realistic program of nutritional support.
4. Managing amenorrhea.

Most experts in the field agree that there is no one way to approach what is an incredibly difficult problem. Insulin, thyroid hormone, gonadotrophin, antidepressants, antipsychotic medication, as well as ECT, psychotherapy, and behavior therapy have been tried. The immediate aim of the therapy is to induce weight

gain. Psychotherapy is of little benefit until after nutritional status has improved. Any attempts at psychiatric therapy, including the behavioral modification program, should be deferred until the patient is nutritionally reconstituted to the point where she is no longer in danger. Psychotherapy with patients who are toxic is both dangerous and ineffective. Patients who are the highest risk for possible death can be identified through history and physical findings. These patients require immediate intervention to correct any tendency to cardiovascular collapse or to electrolyte abnormality. Achieving a normal body weight will reestablish menstrual function. Some patients may remain amenorrheic even after weight gain. Clomiphene Citrate has been tried successfully in some cases. All patients should be closely evaluated as to their suicidal potential. These patients should have a primary staff person to carry out interactions with the patient. Caloric intake should be increased gradually over seven to ten days from one thousand calories to a level twice that of normal adult—three to five thousand calories, depending on size. In severe cases intravenous hyperalimentation or nasogastric tube feedings should be considered. There are no known contraindications to the use of the patient's own G.I. tract for nutrition. High carbohydrate diet with low protein is preferable. Psychoactive drugs should be used if needed for depression and anxiety. It is important to have a team approach to these patients. The psychiatrist, internist, psychiatric nurse, and nutritionalist must be involved in treatment planning. Individual psychotherapy and family psychotherapy are always beneficial. Following discharge the patient should be seen at least bi-weekly for support and guidance. Community support groups are available in most large cities, including Fort Worth. Even though a majority of patients with anorexia nervosa get better and are able to function in society the prognosis remains guarded.

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