•> CASE 29

A 19-year-old woman is referred to a psychiatrist after her roommates become concerned about her behavior. The patient tells the psychiatrist that for the past 2 years, since beginning college, she has been making herself vomit by sticking her fingers down her throat. This behavior occurs regularly, as many as three or four times a week, and worsens when she is stressed out at school. The patient says that she regularly gorges herself with food and is worried that she will become overweight if she does not vomit it up. She describes her gorging episodes as "eating whatever I can find" in large quantities and mentions one incident in which she ordered three large pizzas and ate them all by herself. The patient states that she feels out of control when she is gorging herself but is unable to stop. She is ashamed of this behavior and goes to great lengths to hide how much she eats. She agreed to see a psychiatrist after her roommates found out about the self-induced vomiting.

A physical examination shows a young woman, 5 ft 6 in tall and weighing 135 lb. Her vital signs are blood pressure 110/65 mm Hg, respirations 12/min. temperature 98.2°F (36.8°C), and pulse rate 72/min. The results of the rest of her physical examination are within normal limits.

- **What is the most likely diagnosis for this patient?**
- **What treatment modalities should the psychiatrist recommend?**
- **What areas of the physical and laboratory evaluation should receive special attention?**

ANSWERS TO CASE 29: Bulimia Nervosa

Summary: A 19-year-old woman has been hinging on large quantities of food, above and beyond what most people would eat under similar circumstances. She is embarrassed about the hinging and worries that it will make her obese. She then engages in purging behavior, as often as three or four times a week. This behavior accelerates when she is under stress, and the patient feels she has no control over it. The results of her physical examination are normal, and she is of normal weight.

- **Most likely diagnosis:** Bulimia nervosa.
- **Best treatment modalities:** Nutritional rehabilitation, cognitive-behavioral psychotherapy, and treatment with an antidepressant (selective serotonin reuptake inhibitor **[SSRI]).**

^ **Physical examination and laboratory tests:** Parotid glands, mouth, teeth for caries, abdominal examination for esophageal or gastric injury, dehydration from laxative use. ipecac-associated hypotension, tachycardia, arrhythmias. Serum electrolytes, magnesium and amylase levels.

Analysis

Objectives

1. Diagnose bulimia in a patient (Table 29-1).
2. Understand the most effective treatment regimens that should be recommended
3. Be aware of the laboratory tests that most commonly show abnormalities in patients with this disorder.

Considerations

This patient has all the cardinal signs of bulimia. She binges on food, and during these binges she eats more than a normal person would under the same circumstances. She is extremely ashamed of this behavior and goes to great lengths to hide il. She feels her behavior is out of control and purges

Table 29-1
DIAGNOSTIC CRITERIA FOR BULIMIA NERVOSA

- Recurrent episodes (at leasi twice a week for 3 months) of binge eating and inappropriate compensatory behavior such as purging, fasting, or excessive exercise.
- Self-evaluation is largely (and unduly) based on body shape and weight.
- The behavior does not occur only during an episode of anorexia nervosa.

(in this case vomits) so that she will not gain weight because of her excessive intake of food. These patients use inappropriate ways of controlling weight including fasting, excessive exercise, and misuse of laxatives, diuretics or enemas along with the often seen vomiting. It is a common finding that hinging episodes increase during times of stress, and **patients with bulimia are usually normal or near normal in weight.** Frequent exposure to gastric juices from vomiting can result in severe dental erosion. The parotid gland can enlarge, and the patient can have elevated serum amylase levels. The self-induced vomiting can cause acute gastric dilatation and esophageal tears. Severe abdominal pain in these patients requires nasogastric suction tubes, X-ray studies, and possible surgical consultation. Electrolyte abnormalities, especially low magnesium and potassium, are common. Laboratory abnormalities found in individuals with bulimia nervosa demonstrate hypochloremic-hypokalemic alkalosis resulting from repetitive emesis. If they use ipecac to cause vomiting, they can have ipecac intoxication with pericardial pain, dyspnea, and generalized muscle weakness associated with hypotension, tachycardia, and electrocardiogram (EKG) abnormalities. Ipecac intoxication can cause a toxic cardiomyopathy that can lead to death.

According to American Psychiatric Association practice guidelines, individuals with bulimia nervosa should have a three-pronged plan of treatment. (1) There should be a plan developed for nutritional rehabilitation in which the patient is having regular, nutritionally balanced meals to replace the pattern of fasting then binging with vomiting often seen in this population. This should be supplemented with nutritional counseling. (2) Cognitive-behavioral psychotherapy on an individual basis to deal with the underlying cognitive patterns that drive bulimia combined with group therapy (often based on an addiction-model 12-step program) would be the best way for dealing with the immediate issues. If the patient moves back in with her parents, this should be supplemented with family therapy. (3) Treatment with an antidepressant, usually an SSRI, can produce a decrease in vomiting and binging behavior, but it is important to realize that without psychotherapy, purging behaviors can return.

APPROACH TO BULIMIA NERVOSA

Definitions

Binge eating: Eating an amount of food definitely larger than most people would eat during a similar period of time and experiencing a sense of **lack** of control

Nonpurging type: Type of bulimia where fasting and excessive exercise is utilized without frequent purging

Purging: Self-induced vomiting or misuse of laxatives, diuretics, or enemas for the purpose of preventing weight gain

Clinical Approach

Differential Diagnosis

Bulimia nervosa is estimated to occur in 1% of adolescent and young adult females, but eating-disorderlike behavior (brief times of purging) can affect up to 5% to 10% of young women. Its onset is usually later in adolescence than that of anorexia nervosa, and it can even start in adulthood. Like individuals with anorexia, bulimic patients tend to be high achievers, have a family history of depression, and respond to social pressures to be thin. In contrast to patients with anorexia, those with bulimia often exhibit coexisting alcohol dependence and emotional labiality but more readily seek help. Binge eating and purging are the hallmarks of the disease.

One of the main disorders in the differential diagnoses is anorexia nervosa, binge-eating/purging type. Although binging and purging behavior can be seen in anorexia as well as in bulimia, **anorexia is distinguished by the *requirement* of being underweight and amenorrheic. Bulimic patients can be underweight, of normal weight, or even overweight.** Despite their purging. the sheer amount of high-caloric food eaten can more than compensate for the amount purged.

Another concern is individuals who present with **purging behavior** who do not necessarily meet the criteria for bulimia nervosa. It is not uncommon for adolescents and young adults (especially women) to engage in purging behavior in order to lose weight. This behavior is usually learned from peers and is distinguished from bulimia by being **short-lived, infrequent, and unassociated with physical sequelae.**

Binging behavior can be seen with central nervous system tumors, Kluver-Bucy syndrome, and Klein-Levin syndrome.

Clinical Course

Typical onset is in females during adolescence or early adulthood with the peak onset at ages 18 to 19. It has a mortality rate of up to 3%. After 5 to 10 years of treatment, approximately 50% of bulimic patients will be recovered, 30% will be partially recovered and 20% will meet full criteria for active bulimia. One third of recovered bulimic patients will have a relapse within 4 years of recovery.

Treatment

Cognitive-behavioral psychotherapy to resolve cognitive distortions is the most effective type of psychotherapeutic intervention. Those living at home should have concomitant family therapy. Group therapy is effective because bulimic patients often feel ashamed of their symptoms and have problems dealing with interpersonal problems. Groups show them that they are not alone and give

them opportunities to practice interpersonal problem solving skills. Generally, studies of the effects of medication alone show that they are not as effective as when given in combination with psychotherapy. In cases of effective treatment. a reduction of the purging rate by more than 50% over the first 4 weeks of treatment is often seen.

Comprehension Questions

[29.11 In individuals with bulimia nervosa, which of the following behaviors is considered purging?

A. Eating large amounts of food
B. Excessive exercise
C. Fasting
D. Misuse of laxatives

Questions [29.2] through [29.4] pertain to the following vignette: A 34-year-old woman presents with a 10-year history of episodes in which she eats large quantities of food, such as eight hamburgers and three quarts of ice cream, at a single sitting. Because of her intense feelings of guilt, she then repeatedly induces vomiting. This cycle repeats itself several times a week. She is extremely ashamed of her behavior but says, "I can't stop doing it."

[29.2] On examination, which of the following physical findings is most likely to be seen?

A. Dental caries
B. Lanugo
C. Muscle wasting
D. Obesity
E. Body weight at less than the 10th percentile of normal

[29.3] Which of the following laboratory abnormalities would most likely be found?

A. Hypermagnesemia
B. Hypoamylasemia
C. Hypochloremic-hypokalemic alkalosis
D. Elevated thyroid indices
E. Hypercholesterolemia

[29.4[An effective treatment program would consist of which of the following?:

A. Nutritional rehabilitation
B. Cognitive behavioral psychotherapy supplemented by group psychotherapy
C. Careful use of SSRIs
D. All of the above

Answers

[29.1] D. Purging includes self-induced vomiting or misuse of laxatives, diuretics, or enemas for the purpose of preventing weight gain. Other behaviors utilized by patients with bulimia to prevent weight gain include fasting and excessive exercise.

[29.2] A. The most likely diagnosis for this woman is bulimia nervosa. Physical findings can include dental caries, a round face caused by enlarged parotid glands, or calluses on the fingers resulting from recurrent self-induced vomiting. Lanugo and muscle wasting result from the severe weight loss characteristic of anorexia nervosa.

[29.3] C. Laboratory abnormalities found in individuals with bulimia nervosa demonstrate hypochloremic-hypokalemic alkalosis resulting from repetitive emesis. Hyperamylasemia and hypomagnesemia are also not uncommonly seen in such patients. Various electrolyte imbalances can occur as a result of frequent laxative abuse. Thyroid abnormalities are not common in individuals with bulimia nervosa.

[29.4] D. An effective treatment program would involve all of the treatment modalities described in this question.

CLINICAL PEARLS

A diagnosis of bulimia nervosa requires both recurrent binging and purging or other compensatory behaviors to prevent weight gain. This behavior cannot occur exclusively during an episode of anorexia nervosa.

Individuals with bulimia can be underweight, of normal weight, or overweight.

Physical findings include dental caries, enlarged parotid or salivary glands, and esophageal tears.

Abnormalities revealed in laboratory studies can include hypochloremic-hypokalemic alkalosis, hyperamylasemia, hypomagnesemia, and various electrolyte imbalances.

Selective serotonin reuptake inhibitors are helpful in reducing both binging and purging behavior, but should not be the sole treatment offered.

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