Management of Bulimia Nervosa

4.0 Contact Hours

*California Board of Registered Nursing CEP# 16140*

American Medical Education Center

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Choose the Single Best Answer for the Following Questions and Place Answers on Form:

1. An ECG is required in bulimic patients coming to the Emergency room because they:
   a. Tend to have premature coronary disease.
   b. Have electrolyte disturbances.
   c. Often present with chest pain.
   d. Have hypertension.

2. Which of the following is not a criterion for admission of a bulimic patient?
   a. Inability to look after oneself.
   b. Metabolic complications.
   c. Suicidal ideations.
   d. Use of marijuana.

3. Which class of drugs is widely used to treat bulimia nervosa?
   a. Neuroleptic.
   b. Anti depressants.
   c. Sedatives.
   d. Hypnotics.

4. Which subtype/class of anti depressants has been found to be most useful in treatment of bulimia nervosa?
   a. Tricyclic anti depressants.
   b. SSRIs.
   c. MAOI.
   d. Herbals.

5. Which of the following drugs should be used with great caution in patients with bulimia because of its ability to induce seizures?
   a. Fluoxetine.
   b. Citalopram.
   c. Bupropion.
   d. Fluvoxamine.

6. Use of which mood stabilizer in bulimics is associated with weight loss?
   a. Fluoxetine.
   b. Lithium.
   c. Topiramate.
   d. Valproic acid.
7. Lithium is only useful in patients with bulimia nervosa if they also have concurrent:
   a. Hyperthyroidism.
   b. Bipolar disorder.
   c. Schizophrenia.
   d. Diabetes insipidus.

8. One of the chief reasons why bulimics tend to be non-compliant with Valproic acid is:
   a. Weight gain.
   b. Skin rash.
   c. Constipation.
   d. Insomnia.

9. Which of the following has not been shown to have any benefits in patients with bulimia nervosa?
   a. Baclofen.
   b. Ondansetron.
   c. Anti androgenic oral contraceptive.
   d. Retinoids.

10. In patients who have bulimia with ADDH, which of the following drugs has been reported to be effective?
    a. Lithium.
    b. Fenfluramine.
    c. Methylphenidate.
    d. Cisapride.

11. Forceful retching and vomiting can sometimes result in what surgical emergency in patients with bulimia?
    a. Ruptured spleen.
    b. Perforated esophagus.
    c. Lower gastrointestinal bleeding.
    d. Pancreatitis.

12. Which bone disorder is common in patients with prolonged bulimia?
    a. Osteopetrosis.
    b. Osteoporosis.
    c. Osteogenic sarcoma.
    d. Osteoid osteoma.
Title: Management of Bulimia Nervosa

Self Study Module 4.0 CONTACT HOURS

Objectives

At the completion of this program, the learners will:

1. Describe the acute management of patients with anorexia nervosa.
2. Discuss the complications of bulimia nervosa.
3. List the non-pharmacological and pharmacological treatments for bulimia nervosa.

The management of patients with bulimia is not empirical. The American Psychiatric Association (APA) has established comprehensive guidelines for the treatment of bulimia nervosa.1,2

When a patient with bulimia is first seen in the emergency room, the patient has to be assessed for volume depletion and electrolyte disturbances. The oral cavity, esophagus and abdomen also have to be examined. Because of electrolyte deficiencies, these patients may have arrhythmias and hence an ECG is recommended. A chest x-ray is required to rule out aspiration pneumonia from the constant purging. If there is esophageal rupture, the chest x-ray may show signs of pneumomediastinum or pleural effusion.

From the history one should determine the type of diet pills, energy pills and herbal products that the individual is consuming. There are countless natural herbal supplements containing ephedrine or caffeine that are consumed by bulimics; these supplements could lead to hypertension, palpitations or even a stroke.

Once the patient has been stabilized with intravenous hydration, a mental exam should be done to determine presence of any concurrent illness, depression, substance abuse, anxiety or impulsive disorder.

Admission Criteria

Individuals who are deemed to be at severe risk for malnutrition and unable to stop the destructive behavior of dieting, binging or purging need admission to help break the vicious cycle.3,4 Other reasons for admission may be severe depression, suicidal intent or ideations.5

Finally individuals who have experienced a weight loss of greater than 30% in three months should be considered for admission. Other factors that govern admission include severity of electrolyte disturbances, abnormal vital signs, metabolic complications, prior failed therapy, inability to look after oneself or metabolic alterations. These individual should be medically stabilized and then referred to a mental health professional within 24-48 hours.

Medical Care

Once the diagnosis of bulimia is made, some type of medical care must be provided. The treatment of bulimia includes both pharmacological and non-pharmacological therapies.6 Bulimia nervosa is best managed under the care of mental health professionals. Other professionals that may help guide treatment includes an internist, dietician, psychiatrist and psychotherapist. Preferably, it is important to get the help of a professional who has expertise in the management of food eating disorders.7
The goals of treatment are as follows:

1. Decrease and, where possible, try and eliminate the binge eating and purging episodes.

2. Treat any physical complications and try to restore nutritional health.

3. Enhance the patients' motivation to work together in restoring healthy eating habits and participate in treatment.

4. Provide education on eating healthy and good nutritional habits.

The eventual goal of therapy is to help patient’s reassess and change their inner dysfunctional beliefs, thoughts, attitudes, motives, conflicts, and feelings related to food and external body features. To succeed, one should also treat any associated psychiatric conditions and psychological difficulties. This includes reversal of mood deficits and impulse regulation, and factors contributing to poor self-esteem.

One should try and solicit family support and make available counseling and psychological therapy where suitable.8

Pharmacologic Treatments

There are several evidence based drug treatments for bulimia. The currently FDA approved treatments for bulimia nervosa include antidepressants.

Anti-Depressants

The one class of drugs that is widely used to treat bulimia is the antidepressants. These drugs are also of some help for individual who tend to have other mental health disorders like depression, obsessions, anxiety and impulse control problems.

Anti depressants are especially useful for patients who have not found any therapeutic benefit from psychosocial therapy or have had a poor response to other drugs. Among all the different classes of antidepressants, the strongest evidence for efficacy with the least number of adverse effects in bulimia is the selective serotonin reuptake inhibitors (SSRIs). Among the SSRIs, only fluoxetine (Prozac) has been approved by the FDA for treatment of bulimia nervosa.9

Fluoxetine (Prozac) is started at 60 mg once a day in the morning. Some patients may need to be started at a lower dose of 30 mg once a day, if the side effects are not tolerable. There are some individuals who may require slightly higher dose of 80 mg once a day if no response is seen.

Another SSRI which has been demonstrated to be effective in a small-randomized clinical trial is Sertraline (Zoloft). At doses of 100 mg/day or higher, the drug did relieve many of the symptoms of bulimia.

Other SSRIs, which have also been tried out in bulimic patients, include Fluvoxamine and citalopram. How the SSRIs work in patients with bulimia is not known. It is believed that the drugs mediate their actions by blocking actions of serotonin in the brain. When patients fail to respond to low doses of SSRIs, experts suggest that high doses may be tried out if the side effects are tolerated.10,11

Bupropion (Wellbutrin) should be used with great caution in patients with bulimia nervosa. The drug is associated with a higher risk for seizures in individuals with eating disorders.

Several tricyclic antidepressants (TCAs) and monoamine oxidase inhibitors (MAOIs) have been shown to be effective in small-randomized controlled trials in patients with bulimia nervosa. However, both these classes of drugs are associated with a variety of side effects and are not recommended as initial treatment. Moreover, MAOI have severe dietary restrictions and are rarely used today.12
**Mood Stabilizers**

Topiramate has been studied in small controlled trials and shown to be effective in patients with bulimia nervosa. However, the drug has several side effects, which are not well tolerated. For this reason, topiramate is only selected when other drugs have failed to produce a response. In addition, patients who use topiramate also tend to lose weight, something, which is not beneficial for normal or underweight bulimic patients. Topiramate has been shown to be useful for the short-term treatment of bulimia, as it is known to reduce binge-eating frequency and also helps people lose weight. However, there are no long-term data on this drug in patients with bulimia.\(^\text{13}\)

Lithium per se does not work if the patient only has bulimia nervosa. However, if the patient has been diagnosed with bipolar disorder and bulimia, the drug is effective in reducing binge eating. The problem with lithium is its narrow therapeutic range and toxicity. The drug is also known to cause electrolyte disturbances, which may make symptoms of bulimia worse. In addition, lithium tends to cause weight gain, a feature, which is disliked by most patients. Thus compliance is low for the medication.\(^\text{14}\)

Valproic acid has been tried out in patients with bulimia. Anecdotal reports indicate that the drug does reduce binge eating. However, Valproic acid can cause weight gain and bulimics who are preoccupied with their weight seldom remain compliant to this medication. The drug is used when all other treatments fail.

**Miscellaneous Medications**

There are small studies that have shown the benefits of ondansetron, baclofen and an antiandrogenic oral contraceptive as alternative drug therapies in patients with bulimia nervosa.\(^\text{15-17}\) Clinical trials using naltrexone (ReVia) and venlafaxine have not shown them to be effective. There are anecdotal reports that methylphenidate may be of some benefit in patients with bulimia and concurrent ADDH.\(^\text{18}\)

Before prescribing any psychiatric drug to patients with bulimia, it is important for all healthcare professionals to be aware of the black box warning related to antidepressants and other medications. All patients should be told about the potential benefits and possible risk of medications.

**Non-Pharmacologic Therapies**

Non-pharmacological therapies are often used in conjunction with drug therapies. However, these treatments are not a one shot deal and require prolonged therapy sessions for months or even years.\(^\text{19}\)

**Cognitive Behavior Therapy**

Cognitive behavioral psychotherapy (CBT) is now an established treatment for several psychiatric disorders including bulimia nervosa. The goal of this therapy is to avoid the undesirable eating habits. The treatment includes keeping a diary of food consumption, and understanding the behavior associated with binge eating and purging episodes. The therapy also helps overcome the distorted or maladaptive thoughts regarding body weight and image. The individual is also taught to explore and confront the dysfunctional and irrational beliefs about food and body image. Experts indicate that the cognitive aspects of CBT are a vital ingredient for change, as behavioral interventions alone have not proven to be effective.

Interpersonal psychotherapy (IPT) is also utilized to address specific issues related to the individual and foods that create dynamic tensions. In some cases, IPT can help produce improvements in mood disturbance and low self-esteem, which may have been the trigger factor for bulimia nervosa. The effectiveness of IPT is similar to CBT in decreasing binge eating but is not effective in curbing purging.

**Other Psychological Therapies**
A variety of therapies besides CBT are used to treat patients with bulimia. Both family and individual therapy are widely accepted forms of therapy. These therapies explore family dynamics, attitudes, dysfunctional family relationships, mode of communication, behavior patterns and trigger factors for eating disorders.

Patients with marital disharmony may benefit from couples therapy. Another variation is dialectical behavior therapy for people with severe emotional outbursts and impulsive behavior.

**Self-Help and Support Groups**

Like alcoholics anonymous, support groups and 12 step programs for people with eating disorders are available. These treatment programs are adjuncts in preventing relapse and should not be utilized as sole therapy for acute management of patients. Unfortunately studies so far reveal that the results of self-help and support groups for eating disorders do not always produce positive results. While some individual may decrease their binges, the depression or anxiety may still continue.

Today, there are also self-help groups available online.

**Miscellaneous Therapies**

One other therapy that has shown to reduce binge eating is bright light therapy. The people who respond best to this form of therapy are those with seasonal disturbance in eating (like seasonal affective disorder). Some experts use this form of therapy with CBT and anti depressant medications to reduce binging. Other therapies tried out include guided imagery, acupuncture, yoga and meditations. However, long-term maintenance of treatment effects is unknown.

**Nutritionist**

The nutritionist can help review the dietary needs and provide a guide to the nutritional requirements. Patient with bulimia need to have a structured meal plan to help decrease episodes of dietary restriction and, consequently, diminish the urge to binge and purge. Adequate nutritional intake may help prevent cravings and also promote satiety. All individual should be assessed for proper nutritional intake. The goal of nutritional counseling is not to reduce food intake but to help these patients consume a variety of nutritious foods that promote good health and prevent bad eating habits.

**Dental Consult**

Another professional who is usually required to assess patients with bulimia include dentists. Because these individuals frequently insert their fingers into their mouths to induce vomiting, dental caries are common. Moreover, these people also do not eat a healthy diet and often have severe gum disease. In fact, dental professionals are often the first professionals to suspect an eating disorder.

**Treatment Outcomes**

Of all treatments, CBT is the single most well-studied and effective treatment for bulimia nervosa. Studies do report that a combination of SSRI antidepressant therapy and CBT results in the highest remission rates. When qualified CBT therapists are available this should be the recommended treatment. However, studies also show that CBT alone is not as effective as combination therapy with fluoxetine. There is also one major study that has failed to show any additional benefit from fluoxetine when combined with manual based CBT.

The difficult question is how best to treat individual who fails to respond to CBT and or anti depressant medications. The other problem with bulimia is the high rate of relapse. So far limited evidence indicates that fluoxetine may be used for relapse prevention, but despite this, relapse still tends to occur in a high number of patients.
The exact duration of treatment and the optimal method for preventing relapses still remains unknown. Most experts recommend continuing some type of anti-depressant medication for a minimum of 9-12 months. The duration of treatment with the other medications is not known, primarily because the medications have not been studied for long-term relief.21

When patients comply with CBT and anti depressant therapy, about 50% of bulimics find relief from their symptoms. This phase may last 2-10 years after completion of treatment. Unfortunately the duration of symptom relief from other non-pharmacological therapies remains unknown. The major problem with the few studies conducted on behavior therapies for bulimia are a small number of highly variable patients.

Almost all types of other behavioral therapies including self-help have shown some promise in the short term. The majority of patients with bulimia nervosa tend to prefer psychological therapies for treatment.

**Surgical Care**

The role of surgery is rare in the treatment of bulimia. However, patients with bulimia can develop serious life threatening complications that may require surgery. Some patients may develop acute gastric outlet obstruction and or dilatation that can result in gastric perforation. This diagnosis should be suspected when a patient presents with severe continuous projectile vomiting that occurs immediately after oral intake.

Surgery may also be required if the patient develops esophageal perforation from the forceful retching and vomiting. Mallory Weiss tear can be managed medically but patients may require blood transfusions. These conditions are quite rare but when they occur are often the cause of mortality.

**Psychiatric Complications**

Bulimia is almost never an isolated disorder. The majority of patients have some type of associated emotional disorder. Studies continue to show that individuals who have bulimia are more likely to be substance abusers, have bipolar disorder, anxiety disorder and have a history of sexual abuse.22

Others individuals with bulimia may also develop severe depression, suicidal thoughts, self injurious behavior, unintended pregnancies, sexual promiscuity, sexually transmitted disease, and poor impulse control.23

If bulimia is to be successful treated, these psychiatric disorders also need to be treated at the same time.

**Medical Complications**

Bulimia nervosa is not a trivial disorder and does have complications. The reported mortality in patients with bulimia is similar to what is reported in patients with anorexia (4%).24

Besides gastric or esophageal perforation, other rare but serious complications include reflux esophagitis and cardiomyopathy secondary to use of chemicals like ipecac. Besides heart damage, ipecac can cause skeletal muscle wasting, chronic hypokalemia and muscle breakdown.25

Xerosis (dry skin) is a very common feature in patients with bulimia. This is primarily related to chronic dehydration and vomiting, thus, close examination of the skin can quickly reveal the severity of the condition. The treatment of xerosis is primarily topical moisturizers and hydration.26

Those individuals who abuse laxatives on a chronic basis often develop severe constipation, cathartic colon, melanosis coli and a pseudo megacolon. Other colonic problems include steatorrhea and protein losing enteropathy. Metabolic consequence of chronic laxative abuse also results in hypophosphatemia and hypomagnesemia. The resulting electrolyte disturbances also result in confusion, cognitive changes and confusion.
As the bulimia progresses most individual develop osteoporosis, osteopenia, menstrual irregularities, infertility and joint pain.

Prevention

It is now believed that many eating disorders tend to arise from a society, which places an enormous value on thinness. This has resulted in unreasonable expectations of what is thin physically. Education, awareness of social and cultural factors regarding eating habits and attitudes towards appearances may help reduce the prevalence of this syndrome. In the USA, there are ample opportunities for this kind of intervention in many settings like the home, school and even sporting organizations. School based programs need to emphasize health, fitness and healthy diets which will help reduce the development of bulimia in this vulnerable school aged population.27

Prognosis

The prognosis of patients with bulimia depends on the duration and severity of the eating disorder. Often the prognosis is quite variable and difficult to predict. Most of these individuals also have other psychiatric issues. In most of the individuals, bulimia is a fluctuating disorder and occurs in episodes. It is almost always associated with stress for the individual and creates havoc in the family. Associated mental health issues make treatment difficult.

The prognosis does vary with time. Some studies indicate that for short-term bulimia, there is a 50% improvement in binge eating and purging behavior - this is seen in patients who comply with treatment. However, when individuals are followed for long periods, the results are not impressive. In one study over a 12-year period, 28% of patients still continued to have bulimia and purging behavior. The outcome was worse for patients with psychiatric comorbidities, especially those who had self-injurious behaviors.

Another study, which looked at individuals with bulimia, discovered that parental psychopathology also played a significant role in prognosis. The study showed that substance abuse in fathers and depression in mothers was also associated with poor outcome. On the other hand, obesity in mothers was associated with a positive outcome.28

The majority of eating disorders tend to have a high recovery in the first 10 years after development. Bulimia is the one eating disorder, which has the best chance of recovery over 10 years. This is in contrast to anorexia where the chances of recovery decrease with duration of disease.

Reliable predictors of outcome in patients with bulimia do not exist. However, there are some experts who suggest that depression, the severity of purging, abuse in childhood, negative self-image, childhood overeating, family disturbances in eating, and ADDH may be important predictors of outcome.

Medical complications that also pose a poor prognosis include electrode imbalances and hyperamylasemia that usually reflect more severe purging.

Conclusion

Cognitive behavioral therapy combined with SSRIs remains the therapeutic method of choice for bulimia nervosa. Several modifications of psychological techniques are currently under investigation. Most of these interventions are undertaken with the premise that education about bulimia nervosa in a nonthreatening environment has a therapeutic effect. Once patients start treatment, maintaining compliance is vital for success.

References


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