

FCM-ISP

Title:

Anorexia Nervosa in Adolescents: An Understanding of the Disease and its Comorbidities, Treatment Strategies, and Patient Resources.

Background/Description:

The incidence of anorexia nervosa (AN) in the population is 1-2% and that of bulimia nervosa (BN) is 1-4%. In 85% of cases, disease onset is during the adolescent years (1,2,4). Three main categories of eating disorders exist that pertain to the avoidance of weight gain: 1) anorexia nervosa, 2) bulimia nervosa, 3) eating disorder not otherwise specified. This project's focus will be on anorexia nervosa (AN).

The DSM-IV criteria states that in order to meet the diagnosis of AN, a person must have the following criteria:

A. Refusal to maintain body weight at or above a minimally normal weight for age and height (e.g., weight loss leading to maintenance of body weight less than 85% of that expected: or failure to make expected weight gain during period of growth, leading to body weight less than 85% of that expected.

B. Intense fear of gaining weight or becoming fat, even though underweight.

C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight

D. In postmenarchal females, amenorrhea, i.e., the absence of at least 3 consecutive menstrual cycles

Specify type (2 types):

Restricting Type: during the current episode of AN, the person has not regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics or enemas)

Binge-Eating/Purging Type: during the current episode of AN, the person has regularly engaged in binge-eating or purging behavior (i.e., self-induced vomiting or the misuse of laxatives, diuretics or enemas)

Behind asthma and obesity, anorexia nervosa ranks as the 3rd most common chronic disease of adolescence (1,2) and has one of the highest morbidity and mortality (approximately 10%) rates of any psychiatric disorder (3). This is an especially important disease for primary care physicians to recognize early on in its course because more positive clinical outcomes have been associated with

early treatment. Even if it is discovered that a patient has disordered eating behavior, it is important to immediately address the issue rather than take a 'wait and see' approach because the adolescent may be in the early stages of an eating disorder that could potentially be treated and curbed before the condition exacerbates.

In the early stages, it may be difficult to identify those with an eating disorder. It is appropriate for primary care physicians to ask screening questions of their adolescent patients that cover the satisfaction they (the patients) have with their weight or if the patient or anyone else has concerns about the patient's eating habits/exercise practices. Identifying the disorder is difficult because patients may not always tell the truth and are not always accurate in their descriptions, so it is sometimes helpful to get a family member's input.

It is also important to understand the risk factors that may predispose a patient to develop AN (3). Often a patient will come in for a general complaint such as fatigue, weight loss, lack of energy, or amenorrhea (2). Other clues that can be found on a physical exam include lanugo hair on face and trunk, brittle or listless hair, cyanosis of hands and feet, dry skin, bradycardia, or hypotension. Usually, until very late stages of AN, lab values are within normal limits. If there are lab abnormalities, usually they indicate leukopenia or anemia associated with the patient's AN. If electrolytes are abnormal, this may indicate that a patient is purging as well (1,2). The physician must also be aware of other medical disorders that can cause similar symptoms of AN (loss of appetite, weight loss, amenorrhea, unexplained vomiting) such as Inflammatory Bowel Disease (IBD), malignancies, thyroid disease, Diabetes Mellitus (DM), chronic infections, CNS disease, depression, Obsessive-Compulsive Disorder (OCD), substance abuse, and psychotic disorders (3).

Because there are many comorbidities associated with AN (mood/anxiety disorders, personality disorders, substance abuse disorders, malnutrition, osteoporosis, amenorrhea, and GI dysfunction), it is imperative that the primary care physician organize a multidisciplinary team to address these issues. Apart from the primary care physician, this team should consist of a dietician, psychiatrist, cognitive-behavioral expert, and occasionally a social worker. The family of the patient should be involved and family counseling should be an integral part of the treatment program.

The physician must also appreciate that AN is one of the most challenging disorders to treat effectively and patients struggle with the disorder throughout their lifetime. In one study it was shown that 16% of patients with AN continued to meet criteria more than 10 years after original diagnosis. Another study showed that 50% recovered, 21% had intermediate outcome, 26% had poor outcome, and there was an overall mortality rate of 9.8%. The fact that AN requires years of treatment as well as a multidisciplinary approach is not appreciated or always covered by insurance companies which hinders treatment and only causes more cost in the overall treatment (2,3).

Another decision for the primary care physician to make regarding AN is the appropriate level of treatment for the patient - whether to suggest an inpatient approach or outpatient approach. If inpatient treatment is decided upon, it is important for the primary physician to remain updated on the patient's progress and schedule frequent follow up outpatient care after discharge. If the outpatient approach is chosen, the primary care physician must coordinate care via the multidisciplinary team and see the patient at regular weekly intervals until the patient is making improvements. During follow up, the primary care physician must assess progress in regard to weight gain and caloric intake, vitals, menses in females, hypogonadism in males, osteoporosis, GI function, mental status, and family dynamic.

AN is difficult for physicians to address because there is not much standardization of treatment. Currently, there are only 2 guidelines published that refer to the treatment of AN: the American Psychiatric Association offers an overall review rather than a tailored approach; and the Society for Adolescent Medicine focuses mainly on medical aspects of eating disorders. Neither of these provide clinical pathways; however, physicians at Stanford formed a committee that combined these guidelines as well as local guidelines to create the first protocol published that deals directly with AN in adolescents (3).

Goals:

1. To be able to recognize a patient that may have AN and to make a differential diagnosis
2. To be able to assemble a multidisciplinary team to work with the patient and create a treatment strategy based upon current limited guidelines
3. To understand the proper diet and food choices/resources for patients
4. To understand all of the comorbidities associated with AN and be able to adequately treat or address them
5. To gain insight into the mental state of patients with AN by spending time observing and speaking with patients in both inpatient and outpatient settings
6. To understand the issues that families of patients with AN face by observing family counseling and speaking with patients' family members
7. To understand insurance and financial barriers to adequate treatment
8. To compile resources for patients who live in the San Diego area.

Plan and Methods:

1. Inpatient treatment program: will spend 1-2 weeks at facility observing and speaking with patients, dieticians, physicians, therapists, and social workers. Will attend rounds to understand the team's daily decision-making process. Will attend meals with patients in a group setting to observe patient eating behaviors and gain insight into the patient perception of eating.
Contact: TBD

2. Intensive outpatient treatment programs, Oak Knoll and Kaiser Permanente (pending): will spend 1-2 weeks at each location observing and speaking with patients and staff. In addition will attend staff meetings and family counseling sessions.
Contact: Karen Ritter (Oak Knoll). Brenda Scott-Mead (Kaiser)
3. Dietician: will spend 1-2 weeks working closely with a dietician to understand the daily decision making process and options for caloric intake that patients have.
Contact: TBD
4. Child Psychiatry, Children's UCSD: will spend 1-2 weeks shadowing a physician dealing with outpatient psychiatry issues
Contact: Dr. Heyneman
5. Insurance: throughout project will be attempting to understand insurance policies and barriers and as well as the best way to bill the insurance companies to get the patient's care covered.

Synthesis:

As a future pediatrician, it is important to understand the complex, multidisciplinary character of anorexia nervosa in adolescents. It requires early detection and treatment and it is not a disorder that one primary care physician can adequately address on his/her own. The primary care physician must be able to interweave the fields of nutrition, psychiatry, psychology, and social work into his/her medical/physical treatment plan. He/She must be aware of the treatment obstacles such as patient motivation and insurance issues. In order to fully appreciate this integration, the student will acquire first-hand experience with staff in the associated fields as well as with patients and their families.

Summary/Evaluation:

Throughout the year, the committee members will answer questions the student may have in regard to certain aspects of the project and provide input and guidance as needed. The project will be successfully completed when summarized in a paper that is a combination of research and first-hand experience addressing each of the aforementioned goals and objectives.