# **IJBCP** International Journal of Basic & Clinical Pharmacology

DOI: http://dx.doi.org/10.18203/2319-2003.ijbcp20163203

**Review Article** 

## Anorexia nervosa: a literature review

## Samreen Ahmed\*

Department of Psychiatry, University of Illinois at Chicago, IL, USA

Received: 31 July 2016 Accepted: 31 August 2016

## \*Correspondence to:

Dr. Samreen Ahmed, Email: sahmed@psych.uic.edu

Copyright: © the author(s), publisher and licensee Medip Academy. This is an openaccess article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

#### **ABSTRACT**

Anorexia nervosa, more common in females, is characterized by low body weight due to restricted intake of food, and fear to gain weight as well as distorted body image of oneself. It has a number of medical complications, such as low heart rate, hypotension, etc. These complications need consideration before starting medication for anorexia nervosa. Although, antidepressants have shown no more effectiveness as compared to placebo according to a research.

Keywords: Anorexia nervosa, Risk factors, Body weight, Complications

## INTRODUCTION

## Prevalence

The prevalence in the lifetime is estimated to be 0.3-1% of anorexia in the United States. According to some studies 13% adolescent girls are suffering from disordered eating behaviour in the United States. The rate for men is lower (0.1-0.3%) whereas its 4% for young women. It's more common in white adolescents. Although, it can occur at old age too but mostly the disease process affects the individuals at puberty and early adulthood. <sup>1</sup>

## Risk factors

Physical impairment, ill-fitting dentures are some of the risk factors seen in anorexia nervosa at older age.<sup>5</sup> Other risk factors are female gender, young age, weight changes, and a positive family history.<sup>6</sup>

## Signs and symptoms

The main features seen are abnormally low body weight as a result of persistently restricted intake of energy. It also includes fear to gain weight. Patients also have distorted perception of their body shape. Other associated features comprise of social withdrawal, low libido, restlessness, persistent pursuit of thinness, etc. common signs are Low BMI (<17.5 kg/m²), bradycardia, hypotension, xerosis, and hair loss.<sup>4</sup>

## Coexisting disorders

Anxiety disorders, body dysmorphic disorder, and mood disorders are sometimes seen in anorexia patients.<sup>4</sup>

## Differential diagnoses

We need to rule out the following conditions before making a diagnosis of anorexia nervosa such as

neoplasm, chronic organic disease (undiagnosed), myeloma etc.<sup>1</sup>

## Pharmacotherapy for anorexia nervosa

Pharmacotherapy can be refused by many patients.<sup>12</sup> A way to overcome this refusal can be motivational interviewing.<sup>13</sup> Medical complications of anorexia nervosa should be kept in mind before the drug selection process, such as, bradycardia, low blood pressure, and QT dispersion can result from starvation.<sup>14</sup> Prevention to response to medication can result from changes in neurotransmitter and starvation.<sup>15</sup> Many patients choose to drug out from randomized drug trials, the reason behind inability to conclude the beneficial effect of pharmacotherapy.<sup>12</sup> According to a meta-analysis, antidepressants were not any more effective as compared to placebo in terms of weight gain.<sup>16</sup>

## Criteria for hospitalization

Hospitalization is suggested if the patient has any of the following features:

- Vital signs are unstable
- Cardiac dysrhythmia
- Severe dehydration
- Refeeding syndrome of moderate to severe nature
- Body mass index <16 kg/m<sup>2</sup>
- Acute medical complication as a result of malnutrition.<sup>10</sup>

## **Complications**

Cardiac complications include low cardiac output, weak blood pressure response, and subsequent tiredness. Mitral valve prolapse can also occur due to which patients can complain of chest pain and palpitations. Pregnancy can occur in anorexic patients even in the state of amenorrhea.

#### **Prognosis**

Poor outcomes comprising of death, are found in people who have older age at presentation with history of alcohol misuse and low BMI at presentation.<sup>2</sup> Mortality is higher if co-occurring psychiatric illnesses are present such as substance abuse.<sup>3</sup> Patients can die as a result of suicide or other medical complications.<sup>11</sup>

Funding: No funding sources Conflict of interest: None declared Ethical approval: Not required

## REFERENCES

 Bernstein BE. Anorexia Nervosa, 2016. Available at http://emedicine.medscape.com/article/912187overview#a5. Accessed on 23 April 2016.

- 2. Arcelus J, Mitchell AJ, Wales J, Nielsen S. Mortality rates in patients with anorexia nervosa and other eating disorders: a meta-analysis of 36 studies. Arch Gen Psychiatry. 2011;68(7):724-31.
- 3. Kask J, Ekselius L, Brandt L, Kollia N, Ekbom A, Papadopoulos FC. Mortality in women with anorexia nervosa: the role of comorbid psychiatric disorders. Psychosom Med. 2016.
- Anorexia nervosa in adults: Clinical features, course of illness, assessment, and diagnosis, 2016. Available at https://www.uptodate.com/contents/anorexianervosa-in-adults-clinical-features-course-of-illnessassessment-and-diagnosis?source=see\_link. Accessed on 23 April 2016
- 5. Landi F, Calvani R, Tosato M, Martone AM, Ortolani E, Savera G, et al. Anorexia of Aging: Risk Factors, Consequences, and Potential Treatments. Nutrients. 2016;8(2):69.
- Anorexia nervosa, 2016. Available at http://www.mayoclinic.org/diseasesconditions/anorexia/symptoms-causes/dxc-20179513. Accessed on 23 April 2016.
- Goldberg SJ, Comerci GD, Feldman L. Cardiac output and regional myocardial contraction in anorexia nervosa. J Adolesc Health Care. 1988;9(1):15.
- 8. Johnson GL, Humphries LL, Shirley PB, Mazzoleni A, Noonan JA. Mitral valve prolapse in patients with anorexia nervosa and bulimia. Arch Intern Med. 1986;146(8):1525.
- 9. Bulik CM, Hoffman ER, Von Holle A. Unplanned pregnancy in women with anorexia nervosa. Obstet Gynecol. 2010;116(5):1136.
- 10. Anorexia nervosa in adults: Evaluation for medical complications and criteria for hospitalization to manage these complications, 2016. Available at https://www.uptodate.com/contents/anorexianervosa-in-adults-evaluation-for-medical-complications-and-criteria-for-hospitalization-to-manage-these-complications?source=see\_link. Accessed on 23 April 2016.
- 11. Sala M, Heard A, Black E. Emotion-focused treatments for anorexia nervosa: a systematic review of the literature. Eat Weight Disord. 2016;21:147-64.
- Halmi KA, Agras WS, Crow S, Mitchell J, Wilson GT, Bryson SW, et al. Predictors of treatment acceptance and completion in anorexia nervosa: implications for future study designs. Arch Gen Psychiatry. 2005;62:776.
- 13. Andersen, AE, Yager J. Eating disorders. In: Kaplan and Sadock's comprehensive textbook of psychiatry, volume i, ninth edition, Sadock BJ, Sadock VA, Ruiz P (Eds), Lippincott Williams and Wilkins, Philadelphia; 2009:2128.
- 14. Sachs KV, Harnke B, Mehler PS, Krantz MJ. Cardiovascular complications of anorexia nervosa: a systematic review. Int J Eat Disord. 2016;49:238.
- 15. Phillipou A, Rossell SL, Castle DJ. The neurobiology of anorexia nervosa: a systematic review. Aust N Z J Psychiatry. 2014;48:128.

16. Eating disorders: core Interventions in the treatment of and management of anorexia nervosa, bulimia nervosa and related eating disorders. National

Institute for Clinical Excellence, Clinical Guideline 9. Available at http://guidance.nice.org.uk. Accessed on 22 December 2010.

**Cite this article as:** Ahmed S. Anorexia nervosa: a literature review. Int J Basic Clin Pharmacol 2016;5:1708-10.