Anorexia Nervosa with Obsessive-Compulsive Disorder

Adyapad Pani1, Gouranga Santra2, Kali Das Biswas3

Abstract
We report the case of an adolescent female, previously nonobese, belonging to educated average socioeconomic Muslim family. She stopped taking food, developed a perception of distorted body image with occasional episodes of binge eating and forced vomiting. She became amenorrheic and emaciated with loss of secondary sexual characters. She satisfied the criteria for anorexia nervosa with obsessive-compulsive disorder.

Introduction
Anorexia nervosa (AN), an eating disorder, common in adolescent females of developed countries, is more prevalent in the upper socio-economic classes. Anorexia has an average prevalence of 0.3-1% in women and 0.1% in men in developed countries.1 It is declared to be rare in non-Western countries.2 Though there are few published reports, a qualitative study probing the clinical form is lacking in the Indian literature.

We intend to focus on the clinical pattern of AN in India by providing a descriptive analysis of one case, attending the medical gastroenterology out-patient department.

Case Report
A 14-year-old adolescent female, belonging to an urban Muslim family of average socioeconomic status, was brought by her parents with the chief complaints of pain upper abdomen associated with grossly reduced food-intake and weight-loss of about 10 kilograms over the past year and amenorrhea for the past six months. The pain abdomen subsided with conventional therapy. Her menarche was at twelve years of age but menstruation and development of secondary sexual characters did not develop a perception of distorted body image with occasional episodes of binge eating and forced vomiting. She became amenorrheic and emaciated with loss of secondary sexual characters. She satisfied the criteria for anorexia nervosa with obsessive-compulsive disorder.

On examination, her body weight was 25 kilogram, height-four feet ten inches, Quetelet's index-11.5; she was grossly emaciated. There was bilateral pedal edema, mild pallor, pulse rate-54 per minute and blood pressure-92/60 mm Hg. She had alopecia, lanugo hair on face; dry skin; stained lower incisors; bilateral salivary gland enlargement; atrophied breasts (Tanner III), and sparse pubic and axillary hairs (Tanner II). Systemic examinations were normal.

Laboratory parameters were hemoglobin- 9.8 g/dL with normochromic normocytic as well as microcytic hypochromic anemia, total count- 3600/cumm, ESR- 15 mm/hour, aspartate aminotransferase (AST)- 58 IU/L, alanine aminotransferase (ALT)- 54 IU/L, serum albumin- 2.9 g/dL, fasting blood sugar - 70 mg/dL, urea- 62 mg/dL, Creatinine- 1.5 mg/dL, serum potassium - 3 mg/L, calcium- 8.4 mg/L. Endocrine work up revealed low estrogen, low luteinizing hormone (LH), low follicle stimulating hormone (FSH), increased serum cortisol, low normal thyroxine and a normal thyroid stimulating hormone (TSH). Skeletal X-ray showed osteopenia. Electrocardiogram showed bradycardia and non-specific ST-T changes. However, sputum for acid fast bacilli, chest X-ray, ELISA for HIV, routine urine and stool examination, two-dimensional echocardiography with Doppler, ultrasonography abdomen, upper gastro-intestinal endoscopy, colonoscopy, magnetic resonance imaging of brain were all non-contributory.

On repeated interrogation, she admitted that one year back, she gradually started having intense fear of weight-gain with perception of distortion of her body-image without any noticeable psychosocial precipitating incident either at home or in school. She preferred isolation in her room and avoided socialising except attending school. Since then she started self-imposed dietary restrictions, avoided fried foods and other calorie-rich foods and preferred eating raw vegetables. There was also history of alopecia, cold intolerance, occasional ‘binge-eating’ followed by self-induced vomiting, and occasional constipation. There was no history of any anorectic drug or purgative intake. She enjoyed sketching which she could never finish due to over-attention to perfection. Her father, a businessman by profession, was the sole earning member, leading to a stressful environment in the family. The family history was devoid of any psychiatric disorder, or pressure for slimness. Her siblings were also normal. There was no history of child-abuse or adolescent problems in the family.

We diagnosed her as AN with obsessive-compulsive disorder. Initial oral nutritional therapy (including supplementation of calcium and vitamin D orally), family therapy and psychodynamic psychotherapy resulted in six kilogram weight gain in one and a half months. Subsequently, pharmacotherapy with oral fluoxetine and olanzapine lead to a weight of 35 kilograms at the end of three months, though menstruation and development of secondary sexual characters did not resume. This could not be accounted for in view of steady clinical as well as psychiatry.

1 RMO-cum-Clinical Tutor, Dept. of Medicine, Medical College, Kolkata 700073, West Bengal; 2 Associate Professor, Dept. of Medicine, Midnapore Medical College, Paschim Medinipur; 3 Associate Professor, Dept. of Gastro Medicine, Medical College, Kolkata, West Bengal.

Received: 20.12.2011; Accepted: 11.09.2014
Discussion

Anorexia nervosa (AN) is a psychiatric disorder with the highest mortality among all psychiatric illnesses,\(^3\) characterized by inability or refusal to maintain a minimally normal weight. Patients have profoundly disturbed body-image perception, as well as intense fear of weight gain despite being moderately to severely underweight. A complex interaction between hormonal imbalance, neurotransmitter dysregulation, reduced leptin levels, dietary zinc deficiency and psychosocial, occupational and religious influences in genetically predisposed individuals is thought to mediate its pathogenesis.\(^4\)

It is of two types: the binge-eating or purging type, and the restricting type.

In AN, remarkable changes may be seen involving endocrine system, gastrointestinal system, fluid and electrolyte balance, peripheral blood and bone mineral density. Obsessive-compulsive disorder (OCD) or major depression may be associated. Our patient had most of the above mentioned features, and we established a diagnosis of AN binge-eating type with associated OCD according to both DSM V and ICD 10 criteria. We ruled out conditions like tuberculosis, worm infestation, malignancy, malabsorption, chronic malaria, immunocompromised state and hypopituitarism.

Traditionally, cases of AN from India surmised lack of the fundamental characteristic that AN in India is not accompanied by a ‘fear of fatness’ or desire to be thin, but rather by a desire to fast for religious purposes or eccentric nutritional values.\(^5\) Reports indicate that Western cultural influence might increase the incidence of AN.\(^6\) We have come across only a few case reports of typical AN in the Indian literature.\(^7,8\)

In a developing country like India, in a middle class family as this, and in the absence of any precipitating psychosocial event, AN is a diagnosis of exclusion. But, this case report cautiously points to the fact that due to economic reforms, increased societal pressure and intense influence of media that ‘slim is beautiful’, we are likely to see an increase in the number of Indian patients with AN in the future.

References