Male Adolescents And Eating Disorders

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Abstract

Eating disorders have been reported worldwide. They typically develop in adolescence, particularly among females. Referrals of male adolescents are uncommon. The characteristics of 2 male adolescents referred to a hospital in Singapore are described.

INTRODUCTION

Eating disorders have been reported in almost all countries and cultures. There are three broad categories of eating disorders defined in the diagnostic and statistical manual of mental disorders fourth edition [DSM-IV]: anorexia nervosa, bulimia nervosa and eating disorder not otherwise specified / EDNOS (1). The EDNOS category is listed as atypical eating disorder in the international classification of diseases tenth revision [ICD-10] (2). While bulimia nervosa is a disease of teenagers and adults, anorexia nervosa can develop as young as 8 years of age and incidence peaks around 15-18 years of age (3). Anorexia nervosa is characterized by extremely low bodyweight with intense fear of gaining weight while bulimia nervosa leads to binge eating followed by counteractive behaviours such as vomiting or purging. The EDNOS group incorporates variants of the above two disorders. There has been increasing recognition of eating disorders in males (4).

METHODS

In September 2010, a search of the case notes of children and adolescents with eating disorders referred to the children's hospital in Singapore was performed. In an 8 month period, there were 20 referrals of which 2 were male adolescents. The case notes of these 2 patients were reviewed retrospectively.

RESULTS

Patient 1 presented to the paediatric outpatient department at the children's hospital at age 14 years. He had been referred by his family practice with history of low mood and weight loss. On questioning, he admitted that he had been trying to lose weight over the past 5 months. He had set himself a target weight, involving a 10kg weight loss. He had achieved this by severe dietary restriction down to 1 meal at breakfast time only. He was also exercising more frequently, though he was reluctant to admit how much. Once he had reached his target weight, the patient developed a fear of refeeding and gaining weight, hence he sustained his dietary restrictions and exercise regime. On questioning, he did not have any suicidal thoughts or depressive symptoms. There were no medical co-morbidities. The patient came from an intact family and had one older and one younger brother. He wanted to emulate his older brother as he was healthy and muscular. Older brother was also intelligent and went to one of the top schools in the country. The patient had body image issues and wanted to look nice in his clothes.

Patient 2 presented incidentally with a flu-like illness at 16 years of age. When he was admitted to hospital, his parents mentioned that they were concerned about his extreme weight loss over the past year. On questioning, he admitted that he had been consciously dieting and exercising as he had been overweight previously. He also confessed to self-induced vomiting for at least 2 months. A review of his old case notes revealed that he had been overweight with a peak weight of 58.7 kg at the age of 14.5 years. At this point, he had left slipped upper femoral epiphysis. Blood tests revealed hypercholesterolaemia. He subsequently defaulted his follow-up appointments. The patient came from an intact family and had a 20 year old brother. There were no psychosocial stressors at home.

The characteristics and statistics of the 2 boys at presentation are described in Table 1 below:

Figure 1

Table 1: Characteristics of the patients on presentation

At presentation to hospital	Patient 1	Patient 2
Age (years)	14	16
Length of symptoms (months)	5	12
Weight (kg)	53.1	53.7
Estimated weight loss (kg)	12	8
Body mass index [BMI] (kg/m ²)	19	19
Temperature (°C)	36.8	38.8
Heart rate (beats/minute) lying	68	60
Heart rate (beats/minute) standing	78	83
Systolic blood pressure (mmHg) lying	98	105
Systolic blood pressure (mmHg) standing	116	100
Ideal body weight for height (%)	94	90
Psychiatric co-morbidities	Nil	Nil
Medical symptoms	Cold intolerance, dizziness on standing, lethargy	Nil

Patient 1 was seen purely in the outpatient setting and was never admitted to the ward as he was not medically unstable. A diagnosis of EDNOS was made. He was referred to the dietitian who established that he was only consuming 500kcal / day. A diet of 2000 kcal/day was prescribed and family were counselled about supervising all meals at home. Physical activity was not allowed and the patient was given a letter to excuse him from physical education classes at school.

Blood investigations included full blood count, urea & electrolytes, liver function tests and thyroid function. Liver function tests revealed low alkaline phosphatase of 78 U/L and slightly raised alanine transaminase [41U/L] as well as aspartate transaminase [36U/L]. Free serum thyroxine (T4) was low at 8.9pmol/L, but thyroid stimulating hormone level was normal.

The patient continued to be seen by the adolescent doctor, dietitian and adolescent nurse on a monthly basis in the outpatient setting. Simultaneously referral to a local eating disorder unit was made for ongoing psychological counselling around his abnormal eating behaviours. Four months after diagnosis, his BMI was stable at 19 kg/m2 and weight was maintained at 53.7kg. He was discharged to the local eating disorders unit at this time.

Patient 2 was inpatient for 3 days for symptomatic treatment of a flu-like illness. A diagnosis of EDNOS was made. While inpatient, the dietitian charted an intake at home of approximately 1800kcal/day. He was commenced on a 2100 kcal/day diet. The adolescent nurse and team counselled him on healthy eating habits and advised parents to supervise meals at home. Physical activity was limited and he was excused from physical education classes at school. Blood results including full blood count, urea & electrolytes, liver function tests and thyroid function were all normal. Followup continues in the outpatient setting. Two months after diagnosis, weight has increased to 56.3kg with BMI maintained at 19 kg/m2. His eating pattern has improved a little and he denies self-induced vomiting.

DISCUSSION

There were only 2 male patients with eating disorder referred in an 8-month period, compared to 18 females. This could reflect the lower incidence of eating problems in this gender however under-recognition or under-reporting of the issue in males has to be considered. A review on eating disorders in the United States in 1993 estimates that 5-10% of all cases of eating disorders occur in males (5).

Both patients in this report were diagnosed with EDNOS. The diagnostic criteria for anorexia nervosa and bulimia nervosa are very specific which leads to many eating disorders falling within the EDNOS category. There have been proposals made to change the diagnostic criteria which would lead to a reduction of cases within the EDNOS category (6).

The patients in this report did not have low BMI; however rate of weight loss was dramatic. In cases of EDNOS or otherwise, the patient with rapid weight loss may be physically and psychologically more compromised than another patient of lower weight or BMI. The total weight loss, weight or BMI measurements and types of abnormal feeding behaviours present may present an initial index of severity and determine if the patient is admitted or how frequently they are seen as an outpatient.

Psychiatric co-morbidities were not evident in these 2 patients, though a recent review of eating disorders suggests that they are the rule rather than the exception (7). The first patient was referred with low mood but denied depressive symptoms on questioning. Conditions that may be present include obsessive-compulsive disorder, anxiety, deliberate self-harm, substance abuse, depression, attention deficit and hyperactivity. Medical co-morbidities are also usually present by presentation to healthcare professionals. Medical complications can include bradycardia, hypothermia, arrhythmias exacerbated by nutritional deficiencies, postural hypotension, electrolyte derangements due to laxative use or induced by refeeding, bone loss or osteoporosis.

Interestingly the second patient was obese at a younger age with hypercholesterolaemia. There are various entries in his old case notes mentioning counselling about weight loss and dietitian review to discuss healthy eating. The prevalence of obesity has increased dramatically among children and adolescents, but this has been accompanied by an unhealthy preoccupation with weight and dieting (8, 9). The patient appears to have decided to lose the weight as advised by health professionals, but then developed unhealthy eating and exercising behaviours as his weight reduced.

CONCLUSIONS

Eating disorders are a heterogenous group of disorders that requires a multidisciplinary team approach with medical, nursing, dietitian and psychology input. The incidence and prevalence of eating disorders appears to be increasing. The paediatrician should be familiar with these disorders and be vigilant to their detection, especially among male patients who may not present as often.

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