CASE REPORT

Anorexia nervosa in a blind girl

Jana Kocourkova [1,2], Marcela Soltysova [2], Marketa Mohaplova [2], Michal Hrdlicka [1,2]

1 Department of Child Psychiatry, Charles University, 2nd Faculty of Medicine, Prague, Czech Republic
2 University Hospital Motol, Prague, Czech Republic

Correspondence to: Assoc. Prof. Jana Kocourkova, PhD.
Department of Child Psychiatry, Charles University, 2nd Faculty of Medicine
V Uvalu 84, 15006 Prague, Czech Republic.
TEL: +420 224 433 456; FAX: +420 224 433 420;
E-MAIL: Jana.Kocourkova@lfmotol.cuni.cz

Submitted: 2011-10-07 Accepted: 2011-11-15 Published online: 2012-01-15

Key words: **eating disorders; anorexia nervosa; blindness; adolescence; body image**

Neuroendocrinol Lett 2011; **32**(6):748–750 **PMID:** 22286782 NEL320611C03

Abstract

Eating disorders represent significant psychopathological spectrum, particularly in adolescent girls. One of the risk factors associated with eating disorders is a strong emphasis of western visual-oriented culture on physical appearance and slimness. However, sensory handicap leading to disability to see one's own body and bodies of others does not mean that eating disorder cannot develop in blind people. The authors believe that body image is a mental construct that is not dependent on sensory perception only. They present the case of an adolescent patient, blind from early childhood, who shows symptoms of mental anorexia, depression, suicidal behavior and self-harming.

INTRODUCTION

Anorexia nervosa is a serious and potentially life-threatening psychiatric disorder, characterized by low body weight, cognitive distortions regarding body image and weight and, in women, amenorrhea. Anorexia nervosa has been estimated to occur in 0.5–1.0% of adolescent girls (Kaplan & Sadock 1998).

Although extensive literature exists on mental anorexia, only few studies describe anorectic signs in blind patients. Individual case reports focus mainly on blind adolescent girls with symptoms of mental anorexia (Vandereycken 1986; Yager *et al.* 1986; Touyz *et al.* 1988; McFarlane 1989; Bemporad *et al.* 1989) and, very rarely, on adult women with signs of mental bulimia (Fernández-Aranda *et al.* 2006).

Symptomatology described in the abovementioned studies does not significantly differ from typical cases of anorexia observed in women. Case reports include depressive sings, low self esteem and suicidal behavior. They also often report that girls strive to achieve good school results (which can be extremely stretching for blind girls) and are not willing to admit their own handicap. As far as the ability to adapt to peers is concerned, certain patients report they feel ostracized, others say they are well positioned among their fellows. Perceptions of family relations varied while high demands of parents have been reported. Eating disorders are believed to be caused rather by the lack of coping skills for stress (particularly in association with adolescent process of individuating, separation and seeking one's own identity) than idealization of slimness and body image preoccupation. Repeated traumatic experience with painful ophthalmologic interventions is considered as a risk factor in this group of patients.

In their study with 60 women (20 congenitally blind, 20 blinded later in life and 20 sighted), Baker *et al.* (1997) found out that congenitally blind woman had lower body dissatisfaction score and more positive eating attitudes compared to women blinded later in life and sighted woman. Although Baker *et al.* point out that the impact of

visual media can increase the risk of unrealistic image of slimness and beauty, their allusion to multifactorial model of eating disorders indicate that eating disorders can affect blind women as well.

Case report presented in this paper largely corresponds with the abovementioned clinical descriptions. However, it is important to ask whether one's body image (dependent on one's ability to see his or her own body and bodies of others) at the same time cannot be understood as a mental construct that is also dependent on perception of attitudes of other persons seen as the most influential in adolescence (i.e. parents and peers) and the norms they value. Development of body image thus can be associated with the interpretation of "seeing as interpretive act rather than a mere sensory activity" (Kaplan-Myrth 2000).

CASE REPORT

A 17-year-old girl, blind from early childhood, was admitted to the emergency department after a suicidal attempt by taking approximately 80 tablets of various medication. After her stay at the Pediatrics Department, she was transferred to the Department of Child Psychiatry. On admission, symptoms of depression were remarkable, but also symptoms of atypical anorexia nervosa and self-harming were uncovered. Her presentable motivation for suicidal attempt was vague, she expressed that she felt "needless".

The girl was born by spontaneous delivery in the 30th week of pregnancy, her weight was 1.3 kilograms. She was already given the diagnosis of amaurosis. She was raised by sighted parents. Psychomotor development was adequate to her handicap. At the age of 11 years she underwent an enucleation of one eye because of frequent infections and since then uses glass prosthesis.

Because of great fixation on her mother, patient started attending school at the age of 8. She was never attending school for blind children and has almost never used white cane. Now she is a student of private high school, having an individual study plan.

On admission, symptoms of depression were present (bad mood especially in the mornings, suicidal ideations, insomnia, weakness, self-harming). These were present already for about 6 months, but she never visited any psychiatrist or psychologist before. There was an 11-months history of intermittent food-restrictive behavior and episodes of self-induced vomiting when her weight decreased about 3 kg. Distortion of body schema perception was also present. Patient described a weight preoccupation of her girl schoolmates and had doubts about being considered fat by them. She also felt excluded from the group of classmates.

Her weight on admission was 45kg/155 cm, BMI 19. Laboratory examination at our department revealed a low level of iron and estradiol. Other laboratory parameters were within normal limits. Systemic examination revealed no abnormalities other than few older scars on her left forearm. Anthropometric evaluation was performed, and recommended body weight for patient was 50 kg.

According to symptoms, she meets the criteria for atypical anorexia nervosa and adjustment disorder with depressed mood (ICD-10). In psychological examination was her intelligence assessed as above-average. She was a good student; her personality was ambitious, achievement oriented, very sensitive to evaluation.

Individual therapeutic plan included behavioral modification of eating behavior and pharmacological treatment. Also, individual and group psychotherapy and family therapy were initiated. Pharmacotherapy was started in order to control self-harming behavior. The initial pharmacological monotherapy with sertralin (100 mg daily) had just partial effect. Because of self-harming and aggressive behavior (sometimes with the need of physical restraint and medication for agitation), sertralin was after three weeks of monotherapy augmented by olanzapin (5 mg/d). Subsequently, through cooperation with patient, calming was reached, but unwanted quick weight gain appeared (4 kilograms in two weeks). Therefore, olanzapin was switched to risperidone (1 mg/d), but insomnia and dysphoria persisted. In 10th week of hospitalization, sertralin was switched to mirtazapine (30 mg/d). This change finally resulted in a significant improvement of the symptoms. On the combination of mirtazapine and risperidone, the girl was after a fourteen weeks released from inpatient care.

Inpatient psychotherapy was based on dynamically oriented individual and group psychotherapy as well as family therapy. The aim of psychotherapy was to (1) improve clinical symptomatology (eating disorder, self-harming, and depression), (2) help the patient cope with her handicap caused by blindness, and (3) support family functioning and facilitate patient's adolescence.

Initially, patient perceived herself as the thickest among her girl classmates. She recalled how they compared each other's behinds and was afraid she would be accused of having the largest one. Although she could not see herself and others, she felt overweight. She tended to examine her body by touch, which she did also in some other persons to compare their body weight. She always felt heavier, though she was not in reality. After being released from hospital, she said she would like to be on diet and slim down. She gradually gained insight into anorexia, admitted distorted nature of her self-perception, and was able to become aware of self-punishing character of her self-harming behavior.

Initially, she did not admit that her blindness represents any problem in her personal life. Patient reported that she avoids blind people and does not feel any limitations in this sense. She planned to study at university and make achievements in her future profession. In this area, she was apparently defensive, even expressing denial. Therefore very sensitive psychotherapeutic approach with a low degree of confrontation had to be

adopted. The aim of psychotherapy was to position her blindness as a unique way of perception, not only as handicap.

Interaction with family members indicated defensive way of neglecting patient's blindness and the family's emphasis on performance and results. The parents also showed a great effort to achieve her daughter's integration with healthy peer population and were opposed her closer contact with blind people. From the emotional perspective, the situation was most difficult for the patient's mother who proved to use significantly caring and controlling approach that could be in fact perceived by her daughter as restricting. Nevertheless, it was possible to discuss this topic with family members and control their emotions and anxiety.

DISCUSSION

Development of eating disorders is significantly influenced by sociocultural emphasis on slimness, especially in adolescent girls and young women. Adolescent girls watch patterns of desired physical appearance in mass media and want to mimic them. Subsequently they compare each other. How is it then possible that idealization of slimness and preoccupation with body image can contribute to the development of eating disorder also in blind girls?

Although cases of blind girls with mental anorexia have been published quite rarely, it can be said that many characteristics of these patients are similar. According to most authors, mental anorexia cannot be ruled out in patients with congenital or early blindness (Touyz *et al.* 1988). Vandereycken (1986) points out that body image is influenced also by other senses, which can play an important role also in blind people. Other authors believe that body image development is not based on sensory experiences only (Kaplan-Myrth 2000).

The patient described in this paper intensively occupied herself with her body image; she thought she was fat as compared with other girls and tended to examine her body by touch. Peer group of adolescent girls with whom she compared preoccupied with body weight and food. The patient became convinced that she was overweight and therefore needless. Although she could not see her peers, she internalized the peer norm ("to be slim") as an important aspect of her self-concept. Authors of this paper believe that body image cannot be understood merely as a cognitive construct based on the ability to see one's body and bodies of others, but rather as a mental construct that is part of one's self-concept and may be influenced by interpretation of reality and values held by others.

The patient was diagnosed to have atypical mental anorexia according classification ICD 10 (amenorrhea not observed). Attitude to food and body weight and food restriction corresponded with clinical picture usually seen in mental anorexia. This case was atypical also due to high severity of suicidal attempt, not usually observed in eating disorders (Koutek *et al.* 2009). In order to improve anorectic symptomatology, behavioral modification of eating behavior and dietary changes had to be applied (Nogal *et al.* 2009). Other psychotherapeutic measures focused on aspects of personality, attitude and emotions (Koutek *et al.* 1999). The aim of family therapy was to help the patient and her family cope with developmental tasks. Considering depressive symptomatology and episodically agitated behavior, the abovementioned pharmacotherapy was prescribed. After the patient was released from the clinic, outpatient care was indicated.

REFERENCES

1 Baker D, Sivyer R, Towell T (1998). Body image dissatisfaction and eating attitude invisually impaired women. Int J Eat Disord. **24**: 319–322.
2 Bemporad JR , Hoffman D, Herzog DB (1989). Anorexia nervosa in the congenitally blind : Theoretical considerations. In : Bemporad JR., Herzog DB (ed): Psychoanalysis and Eating Disorders. New York: Guilford Press.
3 Fernández-Aranda F, Crespo JM, Jiménez-Murcia S, Krug I, Vallejo-Ruiloba J (2006). Blindness and bulimia nervosa: a description of a case report and its treatment. Int J Eat Disord. **39**: 263–265.
4 Kaplan HI, Sadock BJ, eds. (1998) Synopsis of Psychiatry. Baltimore: Lippincott Williams & Wilkins.
5 Kaplan-Myrth N (2000). Alice without a looking glass: blind people and body image. Antropology and Medicine. **7**: 277–299.
6 Koutek J, Lorenc J (1999). Some somatic aspects of treatment of eating disorders (Article in Czech). Cs Pediat. **2**: 93–96.
7 Koutek J, Kocourkova J, Hladíkova M, Hrdlička M (2009). Suicidal behavior in children and adolescents: does a history of trauma predict less severe suicidal attempts? Neuroendocrinol Lett. **30**: 99–106.
8 McFarlane AC (1989). Blindness and anorexia nervosa. Can J Psychiatry. **34**: 431–3.
9 Nogal P, Pniewska-Siark B, Lewinski A (2009). Analysis of treatment efficacy in girls with anorexia nervosa (III). Neuroendocrinol Lett. **30**: 32–38.
10 Touyz SW, O´Sullivan BT, Gertler R *et al.* (1988). Anorexia nervosa in a woman totally blind since birth. Br J Psychiatry. **153**: 248–250.
11 Vandereycken W (1986). Anorexia nervosa and visual impairment. Compr Psychiatry. **27**: 545–548.
12 Yager J, Hatton CA, Ma L (1986). Anorexia nervosa in a woman totally blind since the age of two. Br J Psychiatry. **149**: 506–509.