Archives of Depression and Anxiety

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Dates: Received: 31 August, 2015; **Accepted:** 15 October, 2015; **Published:** 27 October, 2015

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www.peertechz.com

ISSN: 2455-5460

Keywords: Eating Disorders; Anorexia Nervosa; Bulimia Nervosa; Rectum Prolapse; Bowel obsession syndrome; Obessive Compulsive Disorder

Case Report

Compulsive Bowel Emptying and Rectal Prolapse in Eating Disorders. Presentation of Two Cases

Abstract

Eating Disorders are a heterogeneous group of complex psychiatric disorders that affect physical and psychological functioning, thus compromising life itself. They are often characterized by extreme preoccupation with food, caloric intake and expenditure as well as bodily weight and shape. Additionally, individuals present several forms of recurrent compulsive behavior, such as frequent weighting, body checking, and eating rituals. In many cases food consumption is considered a" failure" and its presence in the body "harmful and even "toxic" leading the individual to adopt a wide variety of purging behaviors in order to achieve a state of mental and physical "cleanliness"

Two cases of compulsive bowel emptying, one suffering from Anorexia Nervosa and one suffering from Bulimia Nervosa, are presented. The compulsive bowel emptying behavior compromised of repeated and/or prolonged voluntary tension of the abdominal and pelvic muscles as well as insertion of the figure in the rectum to "check" if the bowel has been completely empty of its content. The purpose of this behavior was to alleviate intense anxiety caused by obsessive thoughts that the individual would get "fat" and/or "dirty/intoxicated" if the bowel was not completely vacated of the stools. In both cases the compulsive behavior facilitated the manifestation of rectum prolapse that reinforced the vicious circle of the obsessive-compulsive symptomatology.

Abbreviations

ED: Eating Disorders; AN: Anorexia Nervosa; BN: Bulimia Nervosa; BMI: Body Mass Index; CBT: Cognitive Behavioral Therapy; OCD: Obsessive Compulsive Disorder

Introduction

Anorexia Nervosa (AN) and Bulimia Nervosa (BN) are complex and debilitating, psychiatric disorders that share common core features such as intense fear of gaining weight. Moreover self-evaluation is unduly influenced by body shape and weight [1]. The effects of AN and BN can be devastating as they can seriously endanger the patients physical health, are associated with high risk of morbidity and mortality [2,3], significantly affect psychosocial functioning of the sufferers, burden enormously the patients families and often lead to a considerable drainage of health system resources [4].

The treatment of patients suffering from Eating Disorders (ED) is quite challenging. Apart from defective insight and weak motivation for change, patients present a variety of medical complications. ED and especially AN eventually affect almost all systems of the human body, causing serious cardiopulmonary, endocrine, metabolic, gastrointestinal, musculoskeletal, neurological, dermatological, ophthalmic and oral complications [5,6]. Severe and chronic starvation, purging behaviors and drug (usually laxatives, diuretics, diet pills and anxiolytic) overdosing are the main causative factors of ED medical complications.

Psychiatric comorbidity is also prominent among these patients, namely affective and anxiety disorders, obsessive-compulsive disorder (OCD) body dysmorphic disorder, and personality disorders [7,8]. Clinical features that are obsessive-compulsive in nature are common in AN and BN, both related and unrelated to food. Preoccupation with food, caloric intake and expenditure, bodily weight and shape constitutes a core domain of the sufferers' cognition. Additionally, individuals present with several forms of recurrent compulsive behavior, such as frequent weighting, body checking, as well as eating rituals. In many cases food consumption is considered a" failure" and its presence in the body "harmful and even "toxic" leading the individual to adopt a wide variety of purging behaviors in order to achieve a state of mental and physical "cleanliness".

Rectal prolapse is a medical condition where the full thickness of the rectal wall is protruding through the anus. It predominates in female population, with a female to male ratio of 6:1. Apart from anatomic characteristics related to the musculature of the pelvic floor and the anus and fixation of the rectum to the sacrum, a history of chronic constipation is usually reported, while excessive abdominal pressure, pelvic and obstetric surgeries are considered to be risk factors as well [9]. As far as eating disorders are concerned, the first report in the literature investigating the association of rectal prolapse with eating disorders was attempted by Malik in a case series describing young patients with Bulimia Nervosa (BN) that also suffered from rectal prolapse [10]. Constipation, laxative use, excessive exercise, and increased intra-abdominal pressure caused

from self-induced vomiting were described as possible causes for this co-occurrence. A first documentation of the association between AN and rectal prolapse came a few years later, in a series of three patients with the authors implying that this co-occurrence might be more common than originally thought [11]. Finally Mitchell and Norris presenting a case of a 16 year old female AN patient that developed rectal prolapse concluded that rectal prolapse could be described as an infrequent secondary complication of ED [12]. Most of the authors have suggested that the manifestation of rectal prolapse in ED patients is probably related with malnutrition, frequent purging and prolonged constipation.

The objective of this article is the presentation of two cases of ED complicated by a rare form of compulsive behavior related to the "emptiness" of the bowel. This behavior compromised of repeated and/or prolonged voluntary tension of the abdominal and pelvic muscles as well as insertion of the figure in the rectum to "check" if the bowel has been completely empty of its content. The purpose of this compulsive behavior was to alleviate intense anxiety caused by obsessive thoughts that the individual would get "fat" and/or "dirty/intoxicated" if the bowel was not completely vacated of the stools. In both cases the compulsive behavior facilitated the manifestation of rectum prolapse that reinforced the vicious circle of OCD symptomatology.

The demographic and personal data of both patients have been altered in order to avoid identification.

Case 1

Miss L, 24 student of medicine has been suffering from AN restrictive type since the age of 16. At the age of 18 she developed a constant fear of not being able to empty her bowel. The starting point of this fear, according to her, was her chronic constipation. The constipation has been attributed, by her GP, to the low caloric, low fiber diet that she was following due to AN symptomatology. According to miss L after her admittance to medical school she started having intrusive thoughts that the stools inside her bowel will remain indefinitely and that they will "rote" inside her body. The thoughts caused intense disgust at how "dirty" her body was and how food was "contaminating" her bowel. She started spending an escalating amount of time in the toilet trying to empty her bowel of its "disgusting and "dirty" content. She ritualistically contracted her muscles as hard as possible and pressed her belly with her hands in order to completely empty her bowel from the stools. She remained in the toilet until she was "totally" certain that she has gotten rid of all the "disgusting dirt" in her body.

At the age of 23 rectum prolapse was observed. The surgeon that she visited explained to her that the prolapse was probably caused by the toilet ritual and her low body weight. He also informed her that in order to operate her she would have to try to restore her diet and weight to normal. Miss L did not follow any of the surgeon's suggestions and continued to restrain her diet and spend more and more time trying to empty her bowel and manually reset the prolapse. She abandoned her medical studies due to her inability to keep up with the university's requirements. Gradually she lost all her social activities and remained at her house with her divorced mother that was suffering from alcoholism.

At the time of the first examination the patient had a BMI of 14.3. She reported a variety of compulsive behaviors beyond compulsive bowel emptying. Some of them were related to feeling "clean" while the rest of them had to do with preparation of food and eating. She was also suffering from depressive mood and insomnia. Due to the complexity and the severity of the psychiatric symptomatology miss L agreed to receive inpatient treatment. During her first hospitalization the patient spend around 2-4 hours every day in the toilet following the ritual that has been presented in the previous paragraphs. She was treated with paroxetine 60mg and behavioral therapy for OCD and followed the multi-disciplined inpatient program for AN. Although during her hospitalization she managed to restore her weight and nutrition and reduce the time spend on compulsive bowel emptying rituals to 30-60 minutes per day the feeling of disgust towards he bowel and its content did not subside at all.

Two months after discharge miss L condition deteriorated rapidly and she had to be readmitted. Again her condition improved during hospitalization but not so dramatically as previously. After discharge she stopped eating and having any kind of social activity. She was actually spending most of the day laying in her bed transfixed in a state between sleep and arousal. The only time during the day that she was getting of her bed was in order to go to the toilet. She discontinued all medication during the first month after the second discharge. Four months afterwards she was feeling depressed, hopeless and expressed intense desire to abandon all efforts to live and let herself die from starvation.

At this point after three relapses and consecutive readmissions the patient remains at residential care. Her condition is very slowly improving (including her mood and compulsive behaviors) with the exception of the compulsive bowel emptying symptomatology. Although the antidepressant medication contributed to the improvement of her mood it did not seem to offer any improvement to the compulsive symptomatology so it was gradually tapered down to 20mg per day.

Case 2

Miss K, 22 student of art has been suffering from BN since the age of 18. The bulimic symptomatology started when she left her family and birth city to study art at the University of another Big City in Greece. 2-3 months after BN onset she applied for psychological help and started psychodynamic psychotherapy with a frequency of two sessions every week. Two years afterwards her condition was not only gradually deteriorating but she also started suffering from compulsive behavior that focused on checking rituals concerning her diet, caloric intake and bowel operation. Simultaneously she reported to her therapist that she has started having "disgusting images" of excrements followed by fear concerning the possibility of getting fat due to food remaining in her gastrointestinal system. At that point she developed the obsessive belief that in order to be internally clean and healthy she had to "totally" empty her bowel of its content. Following that belief every time that she visited the toilet she inserted her finger in her rectum to check if it was completely empty of stools. Also

Citation: *Gonidakis F, Georgantopoulos G, Theodoropoulou O, Varsou E (2015) Compulsive Bowel Emptying and Rectal Prolapse in Eating Disorders. Presentation of Two Cases. Arch Depress Anxiety 1(1): 029-032. DOI: 10.17352/2455-5460.000005*

when she was staying at her apartment she continually contracted her abdominal and pelvic muscles in order to "push" the bowel content towards the rectum.

After one year rectum prolapse was observed. Miss K was scared by the prolapse. In a state of panic she decided to terminate psychotherapy, discontinue her studies and return to her family. Her parents initially supported her attempt to seek surgical help. The surgeon that treated her insisted that she should apply for psychiatric treatment in a mental health service for ED prior to the operation. He explained to her that the continuation of the compulsive bowel emptying rituals will probably result in the re-emerging of the rectum prolapse even after successful surgery. Miss K agreed to seek expert help as she was experiencing the prolapse as a catastrophic event for her personal and social life.

At the time of the first examination Miss K's BMI was 18.9. She reported daily morning and evening bulimic episodes and extremely restrictive diet between the episodes. She started treatment with Cognitive Behavioral Therapy (CBT) once every week for BN and behavioral therapy every two weeks for the OCD symptomatology. She was also prescribed with sertraline up to 200mg for the OCD symptomatology.

After 6 months of treatment the patient has achieved a considerable but not sufficient reduction in the number of bulimic episodes (usually one every two days) and has slightly improved her non-bulimic diet. BMI remains at the same level as the beginning of treatment. Miss K has also reported a significant improvement in her mood but only a slight improvement in the feelings of disgust and fear concerning her bowel and the following compulsive ritual. So far the patient has refused to keep any kind of diet diary and avoided to perform any kind of behavioral experiment concerning the compulsive bowel emptying symptomatology. The treating team has unanimously observed that the patient is constantly actively asking for help from others while at the same time she remains quite passive and does not commit to the therapeutic effort.

Discussion

To our knowledge in the literature there is only one other report of similar compulsive bowel emptying that resulted in rectum prolapse. Guerdjikova et al., described a young woman with bulimia nervosa and irritable bowel syndrome who used rectal purging (excessive finger evacuation to induce defecation) as a method of counteracting the effects of her binge eating and subsequently underwent two corrective surgeries for rectal prolapse [13].

From a theoretical point of view this bowel-related compulsive behavior can be viewed as a type of body checking ritual that is characteristic of ED and especially AN. According to CBT frequent checking of body parts is one of ED perpetuating mechanisms [14]. Patients suffering from ED usually view food as a "desired threat". As something that is feared because it can lead to obesity and sought upon for its soothing properties. This ambivalent relation leads to an intense focus on food and everything in the body that is related to that. The intensified focus increases further the awareness of threats (hyper-vigilance) leading to more anxiety and negative affect. Compulsive body checking can be regarded as the behavioral manifestation of this hyper-vigilance body monitoring [15].

In fact, people with ED frequently present with inflexible behaviors concerning food and body related issues and often develop rigid rituals in the daily routine while they experience difficulties in adopting alternative ways of coping with problems. Prevalence of OCD symptoms in ED is significantly higher than in general population [16,17]. Follow up studies showed that, although there is a decrease in the extent and severity of OCD symptoms after weight restoration, obsessive–compulsive traits may persist for some time after recovery [18]. The association between ED and OCD has been proposed to be mediated by similar underlying neurocognitive processes, such as difficulty with set-shifting and central coherence [19,20]. Body checking rituals resemble behaviors observed in OCD, such as compulsive checking, cleaning, and ritualized compulsions. Interestingly, a case study of a female patient with long-standing history of OCD symptomatology related to dirt and germs reported that the patient' s fear of developing bowel cancer led her to manually evacuate faeces from her rectum five times a day thus leading to the manifestation of rectal prolapse [21].

Finally, it should be noted that both patients described that beyond the typical obsessive thought-fear/anxiety reaction they were also experiencing intense feeling of disgust in the possibility that their bowel has not been completely emptied of its content. Both patients made a disclosure to their therapist that is was this feeling of disgust that pushed them to perform the insertion of the finger in the rectum to check for stools. It has been argued that disgust is the gate keeper of the gastrointestinal tract preventing through avoidance behaviors the spread of illness and disease by ensuring that distasteful, infectious or potentially toxic items are not orally incorporated by the individual [22]. Although there are reports in the literature on the association of disgust and ED, most of them have focused on food activation stimuli. Ellison et al, showed that when patients suffering from AN were exposed to disorder-relevant cues such as pictures showing high-caloric drinks, an increased activation in the left amygdala, the insula and the anterior cingulate, cerebral was observed [23]. This activation pattern was quite similar to what was observed during disgust induction.

Conclusions

Although compulsive and/or purging behavior is one of the main characteristics of ED, the clinician is often faced with extreme behaviors that quite often put in jeopardy the patients physical health and therapeutic alliance. In both cases that have been presented the sufferers faced severe medical complications, social isolation and professional inability as a result of their never ending worry of their bowel "emptiness". Sadly in both cases with the exception of inpatient behavioral therapy that also failed to generalize in outpatient conditions none of the therapeutic interventions proved to be significantly effective.

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