# A Different Symptom Associated with Tics in Tourette's Syndrome: Vomiting

### ABSTRACT

A different symptom associated with tics in tourette's syndrome: vomiting

Vomiting is a rarely reported sypmtom associated with tics in Tourette's syndrome. Absence of an organic pathology after detailed physical examination and tests, and exclusion of other psychopathologies like eating disorders help distinguish vomiting as a tic or a symptom associated with tic. In this case presentation, a girl who was vomiting by contracting her abdominal muscles due to feeling of discomfort after noisy swallowing was discussed. The case also had contamination obsessions. After some tests and clinical discussion, the case was diagnosed as Tourette's syndrome and obsessive compulsive disorder. A clinician confronting with vomiting in a patient who has been monitored due to Tourette's syndrome may need to take into account tics or a symptom associated with tics.

Key words: Adolescent, child, Tourette's syndrome, vomiting

#### ÖZET

Tourette sendromunda tik ile ilişkili farklı bir belirti: Kusma

Tourette sendromunda (TS) ortaya çıkan kusma tikler ile ilişkili olan ve nadir olarak bildirilen bir belirtidir. Ayrıntlı fiziksel inceleme ile tetkikler sonucunda organik bir patoloji bulunmaması ve yeme bozuklukları gibi diğer psikopatolojilerin dışlanması, kusma davranışının tik ya da tik ile ilişkili bir belirti olarak ayırt edilebilmesini sağlar. Bu olgu sunumunda, ses çıkartan bir yutkunma davranışının ardından buna bağlı duyduğu rahatsızlık hissi ile karın kaslarını kasarak kusan bir kız olgu tartışılmıştır. Olgunun ayrıca bulaşma obsesyonları da mevcuttur. Yapılan tetkikler ve klinik görüşmelerin ardından olguya TS ve obsesif kompulsif bozukluk tanıları konulmuştur. TS tanısı ile takip edilen bir hastada kusmayla karşılaşan klinisyenin bunun bir tik ya da tik ile ilişkili bir belirti olabileceğini göz önünde bulundurması gerekmektedir.

Anahtar kelimeler: Ergen, çocuk, Tourette sendromu, kusma

# INTRODUCTION

A ccording to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR), both multiple motor tics and one or more vocal tics may sometimes be present in Tourette Syndrome (TS), which is a complex neuropsychiatric disorder (1). As a result of multiple interactions such as genetic, environmental and neurobiological factors, individuals with TS may display different clinical presentations (2-4). Just as tics may comprise of a few muscles or a simple sound, movements of more than one muscle group, copropraxia, coprolalia or echolalia may be also present (5,6).

A phenomenon described as inner tension or "preliminary sensory urges" occurs prior to tics (7). These stimuli are generally described as disruptive and may be the major cause of the disorder. In addition, an indescribable relief following a tic or a series of tics arises (8,9).

Apart from being a symptom of a primary psychiatric disorder such as panic disorder, phobia, generalized anxiety disorder, somatization disorder or eating disorder, vomitting may be rarely encountered as a tic (10). Retching and vomiting was first defined as a tic by Meyer and Rose (11). In 1997, Rickards and Robertson (10) published about 10 TS cases which also suffered from retching and vomiting. In 2007, Eynde et al. reported an 18-year old male, monitored following a diagnosis with eating disorder, who later proved to be suffering from a vomiting tic.

In this report a 12 year 8 month old girl with TS and obsessive compulsive disorder (OCD) who vomits after her swallowing tic, is presented.

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## THE CASE

The 12-year 8-month female case, a seventh-grader, first applied to our clinic with her mother. In addition to her "a feeling of suffocation during excitement, blinking her eyes, incurving mouth and frequent weeping" complaints, her mother described a tic as "wriggling belly". In her history, it was found out that her tics started as a craving for smelling everything and waggling her arms when she was a fourth-grader and, for the last three years, she has suffered from clearing throat, swinging head, touching her genital organ, coughing and making 'th' sound. The tics defined as "wriggling belly" by her mother and as abdominal contraction by her have been accompanied by vomiting for the last two years. The patient stated that a sickening feeling, following a noisy swallowing, was present in her throat, she felt as if there were something in her throat, she needed vomiting and she vomited with an abdominal contraction. She added that she was happy and relaxed because she was able to get rid of this distracting feeling. She was intending to lose weight but her body perception was normal. She was not vomiting to lose weight and did not attempt any physical action or use any chemical substance to vomit. According to her mother, no significant weight loss was observed after she had started vomiting.

In her detailed history, it was also found out that the patient is obsessed with contagion. Her mother expressed this tendency as "she washes her hand after touching almost everything". The patient stated that she felt dirty after visiting someone's house and she take off her socks. which she wore in the house she visited and wash her hands and feet. In addition, she said that she wiped her hands with a wet towel during classes and went to the restroom to wash her hands during the breaks. She stated that she thought her hands became unclean after drying them with a towel and washed them again. The patient, apart from contagion, expressed other recent obsessions. She defined this obsession as a desire to inhale if stairs in a building are clean and to exhale if it is unclean or to step with her left foot if it is unclean and with her right foot if it is clean. In addition, her mother complained about repetitive questions by

the patient such as "Do you love me?" or "Am I lazy?". In her history, it was found out that the patient was a successful student and popular with both her teachers and friends and that her elderly sister, mother and cousin also suffered from chronic tic disorder.

In the clinical environment, the patient, scored 7 (cutoff score: 19) in Child Depression Inventory (13,14) and 35 (cutoff score: 25) in The Screen for Child Anxiety Related Emotional Disorders (15,16) and 29 in Maudsley Obsessive Compulsive Disorder Scale (17). Her motor tic score was calculated as 15, total tic score as 26, general disorder score as 40 and global severity score as 66 in Yale Global Tic Severity Scale (YGTSS) (18). Additionally, pediatric surgery and pediatric gastroenterology departments were consulted in order to analyze the organic infrastructure of vomiting.

Following listening to the patient's history and clinical assessments, the case was diagnosed with TS and obsessive compulsive disorder (OCD) in accordance with diagnosis criteria in DSM-IV TR (1) and was prescribed Risperidon 0.5 mg/day and fluoxetine 10 mg/day.

One month later, it was observed that the patient wept less, she suffered much less tics, she sometimes did not vomit, which increased after she got a low mark in mathematics exam. Her YGTSS motor tic score was calculated as 9, YGTSS phonic tic score as 6, total tic score as 15, general disorder score as 20 and global severity score as 35. No organic pathology was observed in the analysis performed by pediatric surgery. The fluoxetine dose was increased to 20 mg/ day. Three months later, it was found out that the patient was still vomiting with an abdominal contraction and, sometimes, by pushing down on her stomach. No endoscopical analysis was required during the examination in pediatric gastroenterology department. Lansoprazole treatment was applied symptomatically. However, the patient considered it as useless and gave up using this drug after a short while. She stated that vomiting resulted from tics which arose through swallowing and contracting her belly muscles. In addition, recently, she has started touching her genital area more frequently. She said

that she touched there because she had a feeling of itching and her other tics resulted from similar feelings. In the fourth month of the treatment, it was found out that she hadn't used her drugs for about 2-3 weeks. It was observed that eye blinking, swinging head, clearing throat and coughing tics continued while vomiting occurred less frequently. No significant difference in the patient's weight was observed during the monitoring process. In the last appointment, her YGTSS motor tic score was calculated as 12, YGTSS phonic tic score as 9, total tic score as 21, general disorder score as 20 and global severity score as 41.

### DISCUSSION

TS is often accompanied by other disorders, which influence the quality of life such as attention deficit hyperactivity disorder (ADHD), OCD or conduct disorders (19). It was found out that the present case suffered from motor tics such as incurving mouth, swinging head and arms, eye blinking and phonic tics such as clearing throat and coughing. In addition, the patient presenting an obsession of contagion suffers from repetitive compulsions and life-damaging rituals. The case spends most of her time washing her hands as she considers them as unclean. Furthermore, she started experiencing problems in their relationship with her mother due to the repetitive questions the answers of which she can't help hearing over and over again. When these clinical presentations are taken into consideration, the case was diagnosed with TS and comorbid OCD in accordance with diagnosis criteria in DSM-IV TR. It is known that the patients diagnosed with OCD in their childhood have a risk for eating disorders in the future (20). The patients with eating disorder are obsessed with their bodies and vomiting is a behavior that occurs as a result of a compulsive stimulus. In the psychiatric interview, it was concluded that the patient is not primarily concerned about her body structure and weight and that vomiting is not an inappropriate compensatory behavior. The diagnosis with eating disorder was ignored for this patient because she did not display behaviors such as excessive exercises, laxative usage or self-induced vomiting in

order to lose weight. Although no organic pathology which might account for the patient's vomiting was observed in the examinations by pediatric surgery and health departments, a lack of endoscopic examination creates a limitation for this presentation. The patient's motor tic which occurs in the form of an abdominal contraction might have led to gastroesophageal reflux within time. Although this might only be defined by an esophageal pH measurement and measurement of gastroesophageal sphincter, no endoscopic examination was performed. On the other hand, lansoprazole treatment, which was advised symptomatically, was aborted. Because vomiting continued during the drugfree periods it was not considered as an adverse effect of the drug.

The patient's statements on her feelings prior to and following vomiting are quite striking. She stated that she needed vomiting following a sickening feeling present in her throat that came after a noisy swallowing and that she was happy because she was able to get rid of this distracting feeling. This was considered as a pretic sensorial phenomenon similar to an itchy feeling, which was present prior to other tics. Swallowing behavior accompanied by making sounds is a complex tic structure and it stimulated vomiting. In addition to this tic, stimulating retrospective peristaltic movements, abdominal contractions described as "wriggling belly" facilitated vomiting. Vomiting was considered as the last part of this complex tic structure as well as a symptom related to the tics.

In the literature, it is reported that rate of incidence for TS in males is 3-4 times higher than females (21). In Rickards and Robertson's (10) TS series of 10 cases, who displayed retching and vomiting behaviors, it is reported that 6 cases were females while 4 were males. This led to the opinion that genders in which retching and vomiting behaviors were displayed differ from conventional TS clinic. On the other hand, in their study, Eynde et al. (12) stated that complaints about vomiting started around at the age of 16 in a TS case, who imitated eating disorder (12). In Rickards and Robertson's TS series of 10 cases, it was reported that retching and vomiting behaviors started around at the age of 14. Our patient started vomiting at 10 and responded to the antipsychotic treatment. In the previous studies, it was reported that TS cases showing vomiting behavior displayed compulsive behaviors in order to start vomiting (10,12). In the present case, vomiting was started by an abdominal muscle contraction as a result of a sickening feeling preceded by a series of motor tics. In this respect, the present case differs from other cases. However, during the treatment process, it was found out that the case, for a while, started vomiting through pushing down on her stomach. This led to the belief that vomiting, during some periods of the disease, emerged as a kind of self-induced or compulsive behavior.

Vomiting may be encountered as a symptom of several organic or psychiatric diseases. Upon detailed

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physical examinations and analysis, it may be found out that it is not of organic origin. The existence of accompanying symptoms and lack of organic pathology upon medical analysis enables to clarify whether vomiting is a tic-related symptom or not. Vomiting, which emerged following a complex series of phonic and motor tics in this case, was observed as a disruptive behavior. During the treatment process, although it was observed that sometimes it was stimulated by the patient in a self-induced way, vomiting decreased after tics had been taken under control. In this respect, vomiting was regarded as a symptom linked to tics. It is considered that this extraordinary and uncommon symptom should be taken into consideration as a different clinical presentation of TS.

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