

Early Onset Conversion Disorder: A Case Report

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SUMMARY

Conversion disorder is defined as the presence of functional impairment in motor, sensory, and neurovegetative systems, which cannot be fully explained by a general medical condition. In Western countries, conversion disorder is rare in children and adolescents. However, clinical studies from Turkey demonstrate a high frequency of conversion disorder diagnosed in child and adolescent psychiatry clinics. Conversion disorder is more frequently seen in adolescents and young adults than in children. The likelihood of this disorder occurring in children younger than five years of age is very low. This case report presents an 8-year-old patient diagnosed with conversion disorder, whose complaints started at 3 years of age. Her clinical condition had been ongoing and resistant to non-psychiatric treatment approaches. Her symptoms included an inability to stand up and walk, and subsequent confinement to bed, uncontrollable jerking movements in both legs, contractures as a result of decreased muscle movement and joint use, and scoliosis that was the result of prolonged sitting bent to one side. Therapeutic interventions had been successful and the patient completely recovered. In this paper, the clinical presentation of conversion disorder, possible etiological factors and how these factors were managed, concrete treatment strategies, and the follow-up of this patient are discussed. In addition, the importance of early diagnosis and treatment of conversion disorder in children in Turkey and the necessity for interdisciplinary cooperation in treatment are emphasized.

Key Words: Child, conversion disorder, somatoform disorders, treatment

INTRODUCTION

Conversion disorder is defined as a loss or alteration of a function of the motor, sensory, and neurovegetative systems, which cannot be explained by organic causes (Öztürk 2001). According to DSM-IV (Diagnostic and Statistical Manual of Mental Disorders), the diagnostic criteria for conversion disorder are as follows: a functional disorder that is (1) not explained by a neurological or other general medical condition, or by the effect of a substance; (2) is directly related to psychological factors; (3) is not intentionally produced; (4) is not limited to pain or sexual dysfunction; (5) causes significant distress or functional impairment in social, professional, and other areas of life (American Psychiatric Association 1994). Conversion disorder is rare among children and adolescents in Western countries. In Turkey, the incidence of conversion disorder is reported as 2-3% and 3.3% in Child and Adolescent Psychiatry outpatient clinics in Ankara University Faculty of Medicine (Kerimoğlu and Yalın 1992), and Çukurova University, respectively (Avcı and Arslan 1995). Conversion disorder is more common among adolescents and young adults in comparison to children, and its frequency decreases considerably among children under 5 years old. In this paper the clinical signs of a recurrent conversion disorder, which were resistant to non-psychiatric treatment approaches, its possible etiological factors, as well as the treatment and follow-up process is presented in a patient who was 8 years old when she was referred to our hospital, but whose complaints started at the age of 3.

CASE REPORT

T was an 8-year-old girl, who was in the 3rd year of primary school and living in the center of a city

in the Southeastern region of Turkey. Among the complaints of T were an inability to stand up and walk, confinement to bed, scoliosis due to continuously sitting bent to one side, and jerking movements in both legs.

These complaints started when she was 3 years old. Her left foot curved outward and she frequently said that her legs were aching. She suffered from jerking movements, which could be felt by those who held her in their arms, but these movements did not affect her ability to walk. The family did not care much about the symptoms, thinking that they would disappear as she grew up. However, they presented to a university hospital when there was no amelioration of symptoms and the jerking movements of her legs (which disappeared when she was sleeping or standing up) exacerbated. The patient was clinically diagnosed with spinal myoclonus, although the findings of electroencephalogram (EEG) and brain and spinal cord magnetic resonance imaging (MRI) examinations were normal, and was prescribed valproic acid and clonazepam. The family administered the drugs for a few months and then discontinued them because the symptoms did not resolve. Her complaints continued as jerking movements in her legs which disappeared while walking, and did not interfere with any aspect of her life. Hence, her family did not continue the drug treatment and did not take the patient to the hospital for follow-ups.

Her complaints severely exacerbated one day, eight months before she presented to our hospital when she was 7 years old. Until then the patient had no obvious problems in walking. That day, she came home after playing outside in the snow for a long time. She went to bed, saying that she was cold and tired. Meanwhile, her mother, who was expecting a fifth child, was dealing with preparations for the new baby since she was in the last days of her pregnancy. T's father shouted at his wife, blaming her for the illness of their daughter and for letting T play outside on such a cold day. Just a short while after her parents' quarrel, severe jerking spasms started in T's legs. She was holding her legs up without her hips touching the bed, and was not able to sit or stand due to the spasms in her legs. T was taken to the same hospital and was again prescribed valproic acid and clonazepam. Steroid (prednisolone) treatment was given to T when there was no response to these medi-

cations. Following these treatments, T was able to stand up with a support and take a few steps, though she couldn't maintain her balance and the jerking movements in her legs never disappeared completely. The steroid treatment was interrupted due to the presence of side effects similar to Cushing syndrome, and subsequently T's complaints gradually became worse and she was taken to the child emergency service of the hospital where she presented previously with symptoms of severe spasms in her legs and inability to stand and walk. Midazolam infusion was administered because the physicians had believed that T's symptoms were caused by an aggravation of spinal myoclonus and she was hospitalized for follow-up. When her symptoms continued despite five days of human albumin and plasmapheresis treatment, intravenous immune globulin was given, and piracetam and chloral hydrate were used as adjunctive therapies. Complete blood count, biochemical tests, sedimentation, EEG, vanilylmandelic acid in 24-hour urine to check for paraneoplastic syndromes, computed tomography and MRI of her entire body, and bone and renal scintigraphy all were normal. Midazolam infusion was stopped and the doses of valproic acid and clonazepam were increased. Despite all this, the patient was referred to Hacettepe University Faculty of Medicine for examination and treatment since her symptoms continued after one-month of in-hospital follow-up.

T was the 4th child of a nuclear family with 5 children. She had two elder brothers who were 18 and 11 years old, a 14-year-old sister, and a 7.5-month-old brother. T's father is a high school graduate, works as a civil servant, and was 42 years old, while her mother was an illiterate housewife, who was 39 years old. T was born in a hospital after a planned pregnancy and completed her psychomotor development stages normally. She began primary school at the age of 6 and learned to read and write before she went to school. She was successful at school and had good relations with her friends. She was appreciated by her teachers for the quality of her schoolwork. There was never an occasion when her schoolwork or relations with friends deteriorated. T was upset when she was not able to attend school due to her complaints. T's parents have been married for 21 years. Her father was a hardworking man with a benevolent nature. He was fond of his children and in particular, T. Her mother was also concerned for her chil-

dren and house, but had difficulty in coping with tasks outside home by herself. She did not spoil her children to the extent that her husband did. T's 18-year-old brother has been under medical care for 14 years for the generalized tonic-clonic epilepsy, having seizures about once or twice a year. There was no evidence of mental disorders in the family.

T's father repeatedly criticized his wife for being illiterate and being unable to cope with her responsibilities, and sometimes uttered derogatory words to her. T was his favorite child because she learned to read and write before she went to school, was hardworking, established a close relationship with him, and was chatty and compassionate. After coming home from work, T would tell him about what happened at school as well as report to him news about other family members that she thought her father would not approve of. For instance, she would tell him that her mother bought things from a vendor that her husband told her not to do business with or her elder brother did not obey his mother and shouted at her. According to her father, T was very fond of him. He fulfilled all of T's wishes and yelled at his wife when she denied T's wishes. Her father thought that his 18-year-old son was rebellious, nervous, and disobedient, and that his 11-year-old son was lazy and irresponsible. T's 14-year-old sister was also a good student, but she had a closer relationship with her mother. Sometimes the parents' conversations would include quarrelling statements such as, "she is your daughter, the other is my daughter". The mother frequently praised T's elder sister saying, "what would I do without you? You are my greatest helper". When T sometimes wanted to help her mother with the housework, she refused her help with statements like, "you are not capable of helping". Her mother sometimes criticized her husband for spoiling T. T had been sleeping in her parents' bedroom, in a separate bed, since she was born, and sometimes even slept in their bed. Eight months before she presented to our hospital (a short while before the exacerbation of her complaints) T started to sleep in the bed of her father when her mother, who was expecting her 5th child, was close to term and was not sleeping with her husband. Her mother was sleeping with T's elder sister and elder brother in another room. T and her father continued to sleep together after the baby was born.

T was not able to go to school for the last 8 months due to her complaints, and was not able stand up or walk when her complaints exacerbated. She was completely bedridden for the last two months. T's father blamed his wife for T's illness because her father had a neurological illness that had started at the age of 20, which was characterized by quivering. The quarrels on this subject intensified because T's mother objected to this argument. T's father was the family member who was influenced most by her suffering; he always carried her in his arms, did everything she wanted, and he even thought of suicide since there was no notable amelioration of his daughter's symptoms. T's father made his own brother leave the home for telling him, "T will never recover; you will be relieved when she dies". Furthermore, he did not have contact with his wife's family since they did not offer any support to him in dealing with T's illness.

The physical examination of T demonstrated that there were contractures in both of her knees and ankles, which was more noticeable on the right, and scoliosis, curving to the left. It was observed that she could raise her legs up in the air, but could not stand up or walk. The psychological evaluation revealed that she was nervous and anxious. She gave short and reluctant answers to the questions, without establishing good eye contact. She was silent and introverted. She did not talk willingly or show any interest in establishing a relationship. Her thought content was dominated by anxiety concerning her illness and not being able to attend school.

T completed several diagnostic screening tests. In the sentence completion test, she repeatedly stated that she was worried about her illness and wanted to recover immediately. In the painting test she related a story about a lion and a female goat in the backyard of the house of a 5-year-old boy living with his parents; in the story of her painting the lion chased after the boy to bite him and that the boy was afraid. The findings of Gazi Bayer, which is a projective test, revealed that T's father met her physical and emotional needs, but that her mother had a remote position in her life.

CLINICAL FOLLOW-UP

T was followed-up for 5 weeks by the Child Psychiatry department in cooperation with the

pediatric department. Brain and spinal cord MRI and EEG examinations were performed in addition to routine tests. A two-hour EEG monitoring and electromyography were performed. The findings of all examinations were normal. The condition of the patient was discussed by the Child Psychiatry and Pediatric Neurology departments, and it was thought that T's symptoms may have been the result of conversion disorder since all examinations seeking an organic etiology were normal, the patient had not responded to anti-epileptic medications, the symptoms of not being able to stand up and walk could not be explained with neurological findings, which were normal, the jerking movements in her legs were not typical of any movement disorders, and she was exposed to the kinds of psychosocial stress that can provoke conversion disorder. It was decided to not perform further medical examinations and to gradually stop anti-epileptic medications.

Drug treatment, psychoeducation, behavioral therapy, suggestion therapy, and structural family therapy approaches were then used simultaneously for T's therapy. Sertraline 25 mg/day was given for the symptoms of anxiety. The family was highly anxious about the complaints of their child since they thought it was a brain disorder. Therefore, treatment initially was to educate the patient and her family about conversion disorder. The patient and her parents were informed that the findings of all examinations were normal, the patient did not have a physical disorder, which would result in these symptoms, and thus, the probability of recovery was considerably high. Moreover, they were familiarized with the correlation between emotional problems and physical symptoms. T's parents were encouraged to alter their responses to her, particularly her father; they were informed that excessive concern about T's complaints and giving in to her wishes could reinforce the symptoms. T was examined in the Department of Physical Therapy and Rehabilitation, and physiotherapy for the contractures in her knee joints and ankles was started. Following the examination, it was reported that amelioration would be slow due to the contractures and pain during physical exercises, and that walking exercises would begin after 1 year. Since the recovery time estimate was considered to be too long, the consultation of orthopedics was requested. Orthopedic specialists determined that the exercises, which would force the patient

to stand up and walk, would not be harmful. Subsequently, physical exercises, which would enable T to stand up and walk, began within the framework of behavioral therapy. The patient did standing and walking exercises for half an hour, twice each day. T was told by her treatment team that she would not be discharged from the hospital unless she walked normally, that her family would not be allowed to visit her at the beginning of the treatment, and that the amount of time her family was permitted to stay in the hospital would increase in proportion to the level of improvement in her walking. In this way, the secondary gains that T acquired with the role of "patient" would become extinct and improvements in her health status would be positively reinforced. Furthermore, during the physical exercises T repeatedly heard the message, "I know it is hard for you, but you can do it" at every stage of the therapy in order to ensure that she controlled her symptoms. As there is a tendency to be influenced by suggestion in all conversion patients, she was thusly encouraged to stand up and walk.

In terms of the relationships between family members, it was observed that the father attributed a special role to T within the family and it was thought that this situation had the potential to arouse rage in her sisters and brothers and even in the mother, which could result in deterioration of the inter-family relationships. During the course of T's treatment, the special role given to T by her father was revised and he was encouraged to share family authority with the mother to ensure the establishment of a positive relationship between T and her mother. In interviews with T, she demonstrated a failure to express negative events and affection, as well as anxiety about her symptoms. There had been efforts to increase T's awareness of her emotions and she was encouraged to realize that her emotions could be accepted without being criticized and judged.

T was furious at the beginning of the treatment since her family was not allowed to visit her in the hospital, and she had difficulty with the physical exercises due to severe pain. In turn, she refused to communicate with the medical team. However, her rage and anxiety gradually disappeared and her contribution to therapy increased as her efforts to walk were rewarded. Her pain was relieved with analgesics given to her prior to doing the exer-

cises and her relationship with the medical team strengthened. After 5 weeks of treatment she was able to stand up and take a few steps without any support. Her parents were advised to encourage T to develop the initiative to walk on her own, not to physically support her when she is walking, and not to focus on her complaints after her discharge from the hospital. During the 6th-month follow-up it was observed that all of T's symptoms had disappeared, the functional movement disorders recovered completely, the findings of the psychological examination were normal, and T was continuing normally at school

DISCUSSION

Although conversion disorder is rare among children and adolescents in Western countries, it is reported that a considerable rate of patients presenting to outpatient clinics for child and adolescent psychiatry in Turkey suffer from this disorder (Avcı and Arslan 1995, Kerimoğlu and Yalın 1992). Conversion disorder is more common among adolescents and young adults as compared to children, and its incidence rate decreases considerably among children under 5 years of age (Kaplan and Sadock 1998, Pehlivantürk 1996).

The history given by the family and previous medical records provide evidence that the symptoms of the patient began when she was 3 years old. However, these symptoms were restricted to spasms until 8 months before the patient presented to our hospital. The family had not complied with drug therapies since the symptoms had not resulted in any functional impairment. Hence, it was not clear whether the symptoms which had started at 3 years of age were related to her current symptoms and if they were the symptoms of a conversion disorder. The literature reveals that the youngest child diagnosed with conversion was 4 years old (Woodbury et al. 1992). In our case, there was no evidence of reinforcement of a symptom due to a stress factor or a physical illness when the symptoms began at the age of 3. Therefore, the onset of illness may be accepted to be 8 months before the evaluation of the case in our hospital, when T's complaints exacerbated severely and she suddenly lost her ability to stand up and walk and jerking movements in both her legs started.

In a study of 51 children and adolescents with conversion disorder in Turkey, it is observed that

erroneous diagnoses of organic disorders increased among children with conversion disorder that were younger than 12 years old (Pehlivantürk and Ünal 2000). In our case, due to the patient's history of early onset, she could not be diagnosed with conversion disorder, which led to unwarranted use of antiepileptic drugs for a long period of time, even though the findings of all physical examinations were normal. Interdisciplinary cooperation between the pediatric neurology, orthopedics, and physical therapy and rehabilitation departments occurred during the process of both diagnosis and treatment was instrumental in the successful treatment outcome.

It is reported that motor and posture disorders in the form of paralysis and walking problems are frequent signs of conversion disorder in children and adolescents (Goodyer 1981, Grattan-Smith et al. 1988). It has been reported that physical rehabilitation programs, are very helpful in the treatment of conversion disorder, motor type (Krem 2004). In our case, the physical exercises, which enabled the patient to walk and stand, were used in conjunction with behavioral therapy. In conversion disorder among children, behavioral therapy is effective in stopping the reinforcement of symptoms by avoiding secondary gains and in reinforcing healthy behaviors (Lehmkuhl et al. 1989, Mizes 1985). In addition, it was observed that patients with conversion disorder are inclined to suggestion and that this tendency could be effective in therapy (Moene et al. 2003). Patients who are followed-up for conversion disorder generally show evidence of conflicting feelings about continuing and stopping to complain about symptoms. Behavioral therapy aims to relieve the patient's complaints of symptoms by avoiding secondary gains and rewarding healthy behaviors. However, the patient requires a logical motive and effort to give up symptoms. Suggestion was used in an effort to convince T that she could be successful at the standing up and walking exercises in behavioral therapy and that she could develop control over her symptoms.

It is known that physical symptoms may be a means of communication and call for help among people who have difficulty in expressing their emotions, and that secondary gains play a significant role in reinforcing the symptoms (Pehlivantürk 1996). T's therapy program increased both her awareness of her emotions and the development of

her ability to express them without the anxiety of being criticized and judged. It was believed that the interest of T's father in her symptoms would reinforce them through secondary gains, increasing the possibility of a sexual role being perceived by T in her relationship with her father. Throughout interviews with the family, they were educated about how secondary gains can reinforce symptoms.

It was obvious that T had a special position and role within her family, particularly in the eyes of her father. A study reports that families that attribute a special position and special responsibilities, even the role of spouse to their children, provoke the development of hysteria by encouraging the children to adopt early and excessive sexual roles (Öztürk 1976). In our case, T's exacerbated symptoms began a short while after she started to sleep with her father; a situation where she might perceive her relationship with the father as a sexual threat. The results of projective tests showed that T found her relations with her mother as cold and distant, and even though her physical and emotional requirements were met by her father, she perceived a threat in this relationship. According to classical psychoanalytic theory, conversion symptoms are the transformation of the anxiety created by psychological conflicts derived from unconscious drives and requirements into physical complaints (Nemzer 1996). The attribution of a special role to T in the family by her father and the sexual arousal of the patient when she slept with her father might have triggered an Oedipal conflict and resulted in the emergence of her symptoms. Therefore, the focus of the therapy was to concep-

tualize and eliminate the in-family role conflicts. This effort can be examined in terms of a structural family therapy approach (Minuchin et al. 1975). With this approach, the family organization, which produced a somatization tendency in T's family, was transformed into a structure that was less harmful and more functional by the re-definition of interpersonal borders and family roles by the medical team.

Conversion disorder in children and adolescents generally has a good prognosis. Pehlivan Türk and Ünal (2002) re-examined 40 children and adolescents with conversion disorder diagnoses almost 4 years after their first follow-ups and found that the rate of complete recovery was 85%. In our case, although the diagnosis of conversion disorder was 5 years after the onset of symptoms and 8 months after their exacerbation, her successful school performance and adaptation before the onset of the illness, and the lack of a behavioral disorder were found to be significantly related to her complete recovery.

This case highlights that conversion disorder in early childhood can cause severe complaints and symptoms and that erroneous diagnosis of an organic illness may result in unnecessary long-term use of drugs. Moreover, this study emphasizes the importance of treating the underlying factors, which provoke symptoms in conversion disorder, and the requirement of an interdisciplinary approach during the treatment process.

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