

Differential Diagnosis Between Schizotypal Personality Disorder and Autism Spectrum Disorders: A Case Report



Buket ÜNVER¹, Özgür ÖNER², Pınar YURTBAŞI³

SUMMARY

Schizotypal personality disorder is characterized by social and interpersonal deficits marked by discomfort with, and reduced capacity for, close relationships as well as by cognitive or perceptual distortions and eccentricities of behaviour. Inappropriate or constricted affect, reduced capacity for relationships, lack of close friends and reduced capacity for social life are the symptoms that overlap both schizotypal personality disorder and autism spectrum disorders. The making of the differential diagnosis may be difficult since several symptoms are similar between these disorders. In this study, we discussed an approach to making a differential diagnosis with respect to an adolescent case. Odd appearance, magical thoughts, reference thoughts suggests Schizotypal Personality Disorder whereas lack of eye contact at 2 years old, a preference to be isolated and play alone and referral to a child psychiatrist at 4 years old suggest Autism Spectrum Disorders. Based on the results of psychological assessment, Wechsler Intelligence Scale for Children-Revised (WISC-R) profile is compatible with autistic children's profiles. Based on the Schizotypal Personality Questionnaire, the patient's anxiety, lack of close friends, constricted affect symptoms which take place in the category of interpersonal schizotypy seem to overlap with lack of communication of Autism Spectrum Disorders. This case report indicates that separation of autism and schizophrenia is a very important historical breakthrough in autism research, may be blurred in cases with less typical clinical pictures representing autistic and schizophrenic "spectrum" diagnoses.

Key Words: schizotypal personality disorder, autism spectrum disorders, differential diagnosis

INTRODUCTION

Kanner (1943) has used the term autism to define children who correspond with the description of intervention in Beluler's definition of schizophrenia. In contrast, Rutter (1972) later stated that autism and schizophrenia should be evaluated as different disorders. Following Rutter, the similarities and differences between schizophrenia and autism has been examined in many studies. It is known that social problems are generally experienced in individuals having a risk for schizophrenia. In addition, these individuals differentiate from each other in terms of cognitive abilities, and autism-related symptoms are generally seen in these cases (Karakaya et al., 2007; Watkins, 1988;).

Schizotypal Personality Disorder (SPD) is one of the A cluster personality disorders, and included in the schizophrenia spectrum. In recent years, various studies examining the similarities and differences between SPD and Autism Spectrum Disorders have been published (Barneveld et al., 2011; Hurst et al., 2007; Konstantareas and Hewitt, 2001; Sheitman et al., 2004). According to the diagnostic classifications of these disorders, social functioning deficits can be found as a common symptom for both disorders (American Psychiatric Association 1994). Restriction of sharing with others and social relationships, communication problems, limited and occasionally unusual interests, resistance to change, and abnormally responding to the stimulants are the common

Received: 11.09.2012 - Accepted: 26.08.2013

¹Psychologist, ²MD/Asst. Prof., ³MD /Asst. Prof., Dr Sami Ulus Obstetrics and Pediatrics Training and Research Hospital, Child and Adolescent Psychiatry Clinic, Ankara, Turkey.

e-mail: buketaltuk@gmail.com

behaviours seen in autism spectrum disorders. SPD is characterized by referential thinking (excluding delusions of reference), odd beliefs, unusual perceptual experiences, odd speech, paranoid ideation and related excessive social anxiety, inappropriate or constricted affect, odd, or eccentric appearance, and lack of close friends. This disorder is composed of three factors independently from age and gender, those are (i) cognitive-perceptual schizotypy, (ii) interpersonal schizotypy, and (iii) disorganized schizotypy (Raine et al., 1994). Cognitive-perceptual schizotypy on the one hand, indicates a category predominantly including ideas of reference, odd beliefs and/or magical thinking, unusual perceptual experiences, and suspiciousness, on the other hand interpersonal schizotypy consists of the symptoms of extensive social anxiety, lack of close friends, constricted affect, and suspicion. Disorganized schizotypy is the category mostly including the symptoms of odd behaviours and speech. In one study comparing adolescents with and without SPD, and having other personality disorders, it was found that social functioning deficits, and unusual interests and behaviours were seen significantly higher in adolescents with SPD than the other groups (Esterberg et al., 2008). In another study examining the factor analysis of SPD symptoms in people having ASD, it was found that negative, positive, and disorganized SPD symptoms were frequently seen in ASD cases. According to this, it has been stated that the overlap of autistic features is between 31-46% with the negative, 14% with the positive, and 13-19% with disorganized symptoms (Barneveld et al., 2011). Hurst et al. demonstrated that the strongest relationship between Asperger Disorder (AD) and SPD was included within social relationship problems (Hurst et al., 2007). Consequently, few but valuable studies up until now have demonstrated that there is a relationship between SPD and ASD symptoms. This relationship is regarded as the clearest link between interpersonal schizotypy and ASD in terms of interpersonal relationships.

On the other hand, there are some differences between SPD and ASD. Considering the social skills field, social anxiety appears in the SPD criteria in relation to paranoid fears whereas it is not included in the ASD criteria. In respect to the communication field, all the vague, circumstantial, and metaphoric speech types are included in the SPD criteria. Yet, ASD criteria cover nonverbal communication difficulties, such as absence of mutuality and joint attention in social relationships. Restricted repetitive behaviour patterns include verbal behaviours (e.g. stereotypic thoughts and speech) in SPD, and stereotypic, repetitive, and rigid patterns of behaviours, interests, and activities in ASD (American Psychiatric Association 1994; Hurst et al., 2007).

Especially in adolescents, the manner in which SPD is diagnosed and whether this diagnosis remains the same over time are both controversial. However, personality disorders

are defined as “enduring pattern of inner experience and behaviour that deviates markedly from the expectation of the individual’s culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment” in the DSM-IV-TR. Therefore, SPD can be diagnosed in adolescents. The differentiation of SPD and ASD diagnoses is critical because prognosis and treatment of these disorders are different from each other. In addition, the differences between these disorders are important to understand the relationship between the schizophrenia and autism spectrum. In order to understand this relationship more clearly, the following case is presented as an example.

Case Report

M.E. is a 13 year-old male patient, and a seventh year student. His parents presented to the clinic with disorganized behaviours, such as walking around with a cane in school, selling mushrooms, wearing leopard leggings and slippers, setting a picture of his penis as a desktop wallpaper, aggressive behaviour, excessive and uncontrolled anger, using violence against his mother, decline in school success, and being reluctant to attend school. The patient, who had been given different provisional diagnoses and treatments in different hospitals, was hospitalised in order to make a definitive diagnosis and treat his tantrums which could not be controlled during ambulatory treatment.

Developmental and Medical History

M.E. responded by looking when calling his name, but did not make an eye contact. He was unable to start a game spontaneously, and loved playing his dolls; however, his games were repetitive and restrictive rather than being symbolic. M.E., who started preschool at age four, did not join group activities, had trouble adapting to the communal activities such as lunch time and nap hours, and preferred staying alone and playing Lego. At age five, his parents presented to the clinic with complaints of the child being obstinate with his mother, playing with toys for girls, and imitating his mother’s make-up style. In addition, his parents would like to learn how to behave in child-parent relationship in the marital separation period. After the regular nine-month interview, testing and control period, he was diagnosed with attention deficit and hyperactivity disorder and prescribed methylphenidate (5mg) because of the hyperactivity complaints. It was stated that the patient did not benefit from the medication after one year of treatment.

M.E. wanted to build friendships when he started at a school in a suburb; however, he was excluded by his peers, feeling that he was a fool due to his inadequate social skills (e.g. inappropriate attempts of building rapport, restricted social relationships, tantrums, difficulties in maintaining conversations,

inability to build social relationships except those based on restricted interest). M.E. learned to read in the first term of his first year in primary school. His mother stated that he was unable to focus his attention while studying. In his second year, he started to hit his mother when his demands were not fulfilled. For example, he insisted on having his mother buy dolls in a stationery shop, but she refused his request, saying she cannot do it, and then she went out from the shop and started to wait for him. About one hour later, he went out from the shop in anger, and hit his mother after he had hit his own head to the ground. Following the summer holiday, he refused to go to school on account of being excluded by his peers. M.E. was admitted to the clinic after an attempt to jump off a balcony and an increase in using inappropriate language and outbursts in his third year; therefore, he was started on 0.5mg Risperidone and 20mg Fluoxetine. He partly benefitted these medications; however, he decided to stop taking them due to his concerns about possible side-effects. His complaints increased after stopping the medication.

Later, he presented to another clinic, and 50mg Sertraline and 2mg Risperidone treatment was started. Despite this change in treatment, his outburst level was increased, and 10mg Olanzapine and Valproic Acid treatment was started and the patient was given a working diagnosis of bipolar disorder. Yet his mother changed his medication treatment to Risperidone because she attributed his complaints of shortness of breath and stomach pain to the side effects of the treatment. Due to M.E.'s problems of temper control, assaulting his mother, and having frequent fights with his peers, he was admitted to a different child psychiatry clinic early in the fourth year of school. During his hospitalisation, the Risperidone was stopped, and 10mg Aripiprazole was added to the treatment. Due to a varicella diagnosis, he was discharged from hospital early, and the medication was stopped with plans to continue treatment after his recovery. Following recovery from varicella, he was hospitalised again, treated, and discharged. Following discharge his family reported that he could attend group activities, as he partly benefitted from the treatment, and his mood remained more stable.

M.E. switched class in secondary school, and has irregularly attended the school in the last two years. M.E. wore his hooded tracksuit, and slippers, rather than the school uniform while going to school, even in winter months. Once he went to school wearing his mother's leopard leggings, but did not attend class, and sat in the school cafeteria without communicating with anyone. He claimed that the general announcements for all students and any texts written on desks were directed at him. In addition to lacking close friends, M.E. demonstrated poor academic performance. M.E. never knocked on the door before entering the classroom, sat on the teacher's desk, wanted to bring the internet cable from home to school, and offensively addressed adults' through using the

word 'you'. He responded to advice from adults as saying 'I do whatever I want. You cannot interfere with me.'

M.E. had odd interests in both school and daily life. He frequently mentioned phenomenon such as gin, magic, and spirit, and stated that he read magic books and cast a spell. Once, he wore his hooded sweatshirt, went to school, and walked around with a cane, which he referred to as his "wand." He had a strong interest in mushrooms, and tried to sell them in the school cafeteria. M.E. also took photo of his penis at home, and set it as his desktop wallpaper. He had an extensive knowledge of plants, and grew many of them in his house. He wore rings made from stones, each of which he ascribed to have a special energy, and carried a fancy hand fan. He also had a special interest in fortune telling. As observed in the clinic, he wanted to be a fortuneteller, and carried various stones and an elephant-shape lucky charm in his pocket. He did not make eye contact during conversations, never listened to others and wanted to answer questions. While interviewing M.E., he put his leg over his other knee and stared around, avoiding questions by providing responses such as 'pardon me?' and 'hmm'. He stated that his biggest wish was a roomful of gold. When the purpose of this wish was asked, he answered he would lick off them all day long.

M.E. had difficulty in following rules, keeping together with other patients in the clinic, and attending community activities. He was unwilling to have an interview, did not make eye contact, and responded to questions with short answers. It was observed that he was reluctant to disclose himself, slammed the door when noticed someone was approaching the room, grew four plants in his room, hung a long charm on his trousers' pocket, mentioned about an evil eye and his ability of fortune-telling during conversations, and made odd hand gestures during group meetings to protect people from evil eye. In addition, it was observed that he was unaware of feelings of others in both group sessions and individual interviews, he sat inappropriately in a lying-like position and opened his legs at an obtuse angle, used offensive language throughout using the word 'you', attended the sessions with a chewing gum in his mouth, and shouted at patients who made complaints about him. The patient's personal inabilities were discussed in interviews. Necessity of making eye contact during conversations, saying 'hello' before requesting from others and then saying 'thank you' and 'goodbye', the concept of waiting for others to finish the conversation before leaving was explained, and a behaviour schedule was prepared to improve similar communication skills. The decision of going home for the weekend was made based on his daily score on this schedule. In addition, the patient was given homework to improve use of these communication skills. For example, saying hello to other patients in the clinic, asking them how they are, listening and conversing while making an eye contact, and saying goodbye before leaving were included

in his homework. A dislike for the clinic setting and desire to leave as soon as possible encouraged the patient to follow the schedule. However, he refused to complete his daily homework when he said that he could not reach the targeted daily score. The cognitive therapy was difficult to apply because of his unwillingness towards self-disclosure and conversation, inappropriate laughing, and collaborative relationship failure. One of the most important difficulties was building rapport in therapy. The family interview was conducted with the patient and his mother, who was staying in a hospital as an attendant. In this session, it was observed that the mother was feeling helpless, and had desperate and pessimistic thoughts related to the patient. This cognitive and emotional state of the mother was thought as linked to how the patient's insistent behaviours (such as having a fight, swearing, etc.) made her feel. Feeling aggrieved and not being understood revealed aggressive feelings towards his mother. Throughout his hospitalisation, medications were regulated, and he was discharged with 300mg Quetiapine xr and 10mg Aripiprazole prescription.

Mental State Examination

The patient was conscious and fully oriented. He was distracted and his intelligence was measured as dull. Abnormalities in the flow of thoughts were not found; however, poor judgment in thought content, and non-delusional ideas of reference were identified. His affect was labile, and it was observed that he was angry, depressed, or anxious during the examination. His psychomotor activity was normal in general, but his tendency of intemperance, especially when angry, was observed.

Psychological Assessment

The patient was given Wechsler Intelligence Scale for Children-Revised (WISC-R) for measurement of intelligence, Schizotypal Personality Questionnaire (SPQ), Social Communication Scale (SCS), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Thematic Apperception Test (TAT) for personality assessment, and Beier Sentence Completion Test (BSCT) as a projective test.

According to the results of WISC-R, the patient's Verbal IQ score was found to be 83, Performance IQ score was 76, and the total intelligence score was 78. He obtained the lowest score on the Picture Arrangement subscale of Performance scale, and the highest score on the Block Design subscale of Performance scale. In the Verbal scale, he obtained the lowest score on Digit Span and Comprehension subscales with equal scores, and the highest score on Similarities subscale. These findings may indicate that the patient has difficulties in his reasoning ability and conducting his behaviour appropriately for his given circumstances. In addition, these findings

suggest that there is a problem in the inability of perceiving the series of events and building cause and effect relationships. According to the results of SPQ, which evaluates the different dimensions of schizotypy, the patient had a higher score than the cutoff point of 10. When the subscale scores were analysed, it was found that he obtained the top scores on social anxiety, odd behaviours, and no friends subscales, average score on ideas of reference subscale, and a lower score on odd beliefs-unusual perceptions subscale. Considering these scores, the patient is within the 'interpersonal schizotypy' category. The SCS score of the patient indicates the presence of social communication problems. It was determined that the patient has depressive symptoms with a higher BDI score, and anxiety symptoms with an average BAI score. TAT examination results demonstrated that the patient has depressive symptoms, and magical, exaggerated and sexual contents of thought. The BSCT results showed that the patient has conflicts with his mother, and was experiencing problems in school. In addition, the statements of the patient such as desiring to be a fortune-teller, and specifying the 'mushroom festivals' as a favourite activity is regarded as the indicators of unusual and odd ideas.

DISCUSSION

The reduced capacity or social relationships, constricted affect, repetitive patterns of interests, and an inadequate social functionality level meet criteria guidelines of both SPD and ASD. However, both disorders have distinctive features. Qualitative impairments in communication (such as delay in spoken language, inability to sustain a conversation, repetitive, stereotyped, and idiosyncratic use of language, etc.) of autism is not in the criteria for SPD. Similarly, the ideas of reference, odd beliefs, magical and paranoid ideas, odd and peculiar behaviours and appearance, and social anxiety characteristics are not in the criteria for autism. However, ASD is a broader category, and similar behaviours can be seen, especially in individuals who are high-functioning and demonstrate well developed verbal skills (Ozguven et al., 2001). Unlike the common autism disorder, even if the individuals with atypical ASD actively seek friendship, they may have social difficulties. Social skill deficits can reveal themselves through impaired insight, having difficulty in identifying emotions, an inability to sustain a conversation, being persistent on a subject unattractive for others, and inappropriate social behaviours (such as inappropriate comments and level of closeness, and tantrums). The case represented in this article met the criteria of ASD with a reduced capacity of sharing with others and social relationships, communication problems, deficiency in social and emotional mutuality, unusual interests, and also met criteria for SPD with ideas of reference, odd beliefs and speech, paranoid ideas, constricted

and inappropriate affect, odd or eccentric appearance or behaviours, and lack of close friends or confidants.

Although social relationship problems provide a basis for both disorders, there are many differences between them. Deficiency in social functioning, mutuality and joint attention (such as failure to be able to point to an object or person, or directing others' attention to an object), in other words, nonverbal communication difficulties stand in the forefront. However, the social functioning deficiency in SPD is based on the social anxiety related to paranoid ideas. Even though the repetitive and restricted behaviour in SPD criteria covers stereotypic thoughts and speech, ASD criteria include stereotypic, repetitive and ongoing behaviour patterns only.

As seen in the case history, claiming that general announcements for all students and any texts written on desks were directed to him, and complaining about patients by saying 'they are always picking on me' indicate the patient's ideas represent the presence of paranoid ideas. An inability to make eye contact spontaneously, being unwilling to listen to others and lacking of social mutuality complicate making a definitive diagnosis for both disorders. Whereas unusual appearance, magical thinking and ideas of reference of the patient may indicate SPD, lacking of eye contact at two years old, preferring to stay and play alone, and applying to the child psychiatry clinic by age four may be an indicator of ASD.

Considering the results of psychological assessment, having the top score on the 'block design' subscale of WISC-R is consistent with the WISC-R profile of children with autism. According to the SPQ results, being within the interpersonal schizotypy category is also consistent with social communication deficiency seen in both clinic and case history. This interpersonal schizotypy category of SPD with anxiety, lacking of close friends, and constricted affect symptoms seems to overlap with the communication deficiency in ASD, and can complicate the diagnosis. In addition, having unusual perceptions, magical thinking, and ideas of reference symptoms of SPD in comparison with interpersonal isolation minimised the criteria are in SPD, but not in an ASD diagnosis. Social Communication Scale is used for the assessment of ASD (Oner et al., 2012). In the context of this scale, inappropriate personal questions and comments, unusual excessive interests, lacking of imaginative play, disregarding peers, and not giving positive responses to approach of peers overlap with ASD criteria. Therefore, odd interests, asking inappropriate questions and making interpretations, and having unusual appearances are not peculiar to SPD. Magical, sexual, unsocial, suspicious, and exaggerated contents of thoughts in the patient's TAT assessment are consistent with SPD criteria.

Although autism and schizophrenia have very similar symptoms, Rutter (1972) highlighted the different aspects of these disorders, and stated that they are different disorders from each other. However, some characteristics of ASD and SPD overlap, as discussed before. The similarity of these disorders complicates the distinctive diagnosis. These differences, which are clearer in classical and typical cases, become uncertain when they are discussed as 'a spectrum'. In addition, ASD and schizophrenia are studied by unconnected research groups. Therefore, it is difficult to combine the findings of these studies. For further classification, studies should be conducted with a goal to determine how social relationship problems are differentiated from each other more functionally. The practical and theoretical importance of this case is that both disorders are evaluated as a spectrum, and the differentiation of these disorders may not be as clear as thought, especially in atypical cases.

REFERENCES

- American Psychiatric Association (1994) DSM-IV - Diagnostic and Statistical Manual of Mental Disorders - 4th Ed. American Psychiatric Association, Washington DC.
- Barnevelde PS, Pieterse J, Sonneveld L et al (2011) Overlap of autistic and schizotypal traits in adolescents with autism spectrum disorders. *Schizophrenia Res*, 126: 231-6.
- Esterberg LM, Trotman DH, Brasfield LJ et al (2008) Childhood and current autistic features in adolescent with schizotypal personality disorder. *Schizophrenia Res*, 104: 265-73.
- Hurst RM, Nelson-Gray OR, Mitchell JT et al (2007) The relationship of Asperger's characteristics and schizotypal personality traits in a non-clinical adult sample. *J Autism Dev Disord*, 37: 1711-20.
- Kanner L (1943) Autistic disturbances of affective contact. *Nervous Child*, 2: 217-50.
- Karakaya I, Yıldız Ö, Şişmanlar Ş et al (2007) Çok erken başlangıçlı çocukluk çağı şizofrenisi: Bir olgu sunumu. *Anadolu Psikiyatri Dergisi*, 8: 154-7.
- Konstantareas MM, Hewitt T (2001) Autistic disorder and schizophrenia: diagnostic overlaps. *J Autism Dev Disord*, 31: 19-28.
- Öner P, Öner Ö, Çöp E et al (2012) Sosyal iletişim ölçeğinin okul öncesi çocuklardaki geçerlik ve güvenirliği. *Klinik Psikofarmakoloji Bülteni*, 22: 43-50.
- Özgüven HD, Öner Ö, Ölmez Ş (2001) Erişkin bir Asperger bozukluğu olgusunun klinik ve nöropsikolojik değerlendirmesi. *Türk Psikiyatri Derg*, 12: 233-40.
- Raine A, Reynolds C, Lencz T et al (1994) Cognitive-perceptual, interpersonal, and disorganized features of schizotypal personality. *Schizophrenia Bull*, 20: 191-201.
- Rutter M (1972) Childhood schizophrenia reconsidered. *J Autism Dev Disord*, 2: 315-37.
- Sheitman BB, Bodfish JW, Carmel H (2004) Are the negative symptoms of schizophrenia consistent with an autistic spectrum illness? *Schizophrenia Res*, 69: 119-20.
- Watkins JM, Asarnow RF, Tanguay PE (1988) Symptom development in childhood onset schizophrenia. *J Child Psychol Psychiatry*, 29: 865-78.