

Case Report

## A case report of Asperger's syndrome with severe eating disorder

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### Abstract

Only a few cases of Asperger's syndrome with a concomitant eating disorder have been reported in Japan and abroad. We encountered a case that manifested the comorbidity of severe eating disorder and Asperger's syndrome. The patient first manifested symptoms while in Germany as a student. Despite visiting different health care providers and receiving psychological counseling for about 10 years, the patient was in critical condition with low body weight of only 22.8 kg when she first consulted us. During hospitalization she was prohibited her from taking laxatives and compressing her abdomen with a belt. We established a target weight for the patient to allow her to stay out overnight or be discharged. The patient was discharged on the 52nd day of hospitalization. The case met the diagnostic criteria of DSM-IV-TR (American Psychiatric Association, 1994). Simple directive inpatient behavior therapy appeared to be effective in this case.

**Key words:** Eating disorder, Asperger's syndrome, Comorbidity, behavior therapy

### I Introduction

The patient indicated Asperger's syndrome having difficulty with personal relations, preferring solitude, and displaying incompetence and persistence with the same thing from childhood. The patient first manifested symptoms of eating disorder while in Germany at thirteen years of age. Later, the patient visited different health care providers and received psychological counseling for about 10 years, with weight gain and loss during that time. However, when admitted to our hospital the patient was in critical condition with low body weight.

### II Clinical Report

OA was 23-year-old female who was delivered at gestational age to a 33-year-old primip-

ara by forceps delivery, birth weight was 2,686 g. She was an only child. At admission, she was emaciated with no panniculus adiposus. The skin was xerotic. She weighted 22.8 kg, with a height of 150 cm; BMI was 10.1. Amenorrhea occurred from when she was 21 years old. She had a deadpan look with deficient reaction. Blood biochemistry findings were; protein 4.1 (6.5~8.3), GOT 48 (8~38), GPT 86 (4~43), ALP 77 (110~354), Na 131 (135~156), Cl 96 (98~110), K 3.4 (3.5~5.3). Scores were low except for GOT and GPT. The echocardiography (CUS) showed normal cardiac function. EEG was 50  $\mu$ V, the frequency in advent of  $\alpha$  wave (10 Hz) was medium and a few  $\beta$  waves were evident. These findings were borderline brain waves. MRI findings were normal. The intelligence test WAIS-R findings were IQ 70, VIQ 82 and PIQ 62, indicating an intellectual border area. The difference between VIQ and

PIQ was 20 with that for VIQ being, significantly high. Social and culture understanding scores were low. A diagnosis of eating disorder and Asperger's syndrome was suggested.

The patient was meek and played with only the same friends as a child. She cried every morning from separation anxiety in the first year of kindergarten. She sucked her fingers during the lower grades of elementary school. Her academic performance was not good. The mother thought that she might be suffering from Asperger's disorder.

With report to memory and language development, the patient showed good memory when she was 2 to 3 years old. She was more interested in English from about the age of 3 to 4 years and wanted to learn it. She experienced home stays in Denmark and Australia during elementary school.

Her behavior was stereotypic from childhood. She did not play with friends, preferring to play alone. She could not initiate an activity until a parent forced her to. For example, she would cry if her parents tried to give her a bath after a meal. If she started doing homework, she would not go out until it was done. She was particular about the same thing; for example, she always bought the same brand, sat in the same place all the time, and would panic if there was a change in her schedule.

She was extremely awkward, not being able to use an umbrella and wore button clothes. She lacked flexibility and found it difficult to socialize, worrying about others attitudes, but she could not understand what the situation and get used to those around. She lost her temper when scolded. However, she did not have an inclination to obsession. She found it difficult to express sympathy and behaved like a spoilt child with her mother. There is no patient of mental illness in her family. Her parents had irritable and obstinate personalities.

As she could not make friends in Japanese elementary school, she entered a Steiner school when she was 13 years old. Later she went to Germany for three months, but she felt pressure at the new school. Anorexia occurred and her parents were summoned by her host family in November. She did not want to return to Japan, but her parents had her admitted to the pediatrics section for 30 days. She weighed 26 kg, with a height of 146 cm, and BMI of 12.2. After that she lost 4 kg, and then gained 10 kg by intravenous feeding. She

went to various institutions, including M psychosomatic medicine (sand play technique), M Hospital (specialized hospital), H Hospital, H clinic (psychoanalysis), O University and T Hospital over ten years. She repeated weight gain and loss. She went to counseling for more than 10 years and did not like medical treatment, because she thought it made her gain weight.

Though she did not eat, she was interested in food. She went to the lavatory every two hours because she thought she would gain weight if she did not excretion. She kept two big belts fastened around her waist. She had trouble going to school because of her eating disorder and refused to attend school due to neurotic symptoms during her second year of junior high school. After a delay of two years, she transferred to a private high school. She almost was able to continue attendance and entered K women's university (department of French literature) with a recommendation. She was in good health when she was at university, but the eating disorder worsened when she was 22 years old. She was examined and hospitalized during summer vacation. She could not understand why she had the eating disorder and did not want to gain weight. She weighed up to 40 kg which was a maximum record for her but vomited when she felt she had over eaten. There was the time that it showed a slight overeating and vomit in 40 kg when she got fat most till now.

Her treatment after hospitalization was as follows. First, she was placed to psychiatric ward from the internal ward (single room) to check the intake of meals. The nurses took charge of the laxative sennoside, that she had brought with her and control its use. We asked her to relinquish the two big belts which she had kept tightened around her waist. She was strictly told to eat all her meals. She was given intravenous drip injection containing carbohydrates, maltose 250 mg and metchloramid 10 mg. We also administered sulpiride 50 mg. After hospitalization, she repeatedly requested to go home on weekends. She stopped eating and dumped a meal. She complained of lack of bowel movement because she had not taken sennoside and of growing fat. She disliked enemas. Her weight increased to 24.4 kg from 22.8 kg. She would eat without any sign of enjoying it. Therefore, the nurse decided to allow her to have meals with other patients in a hall. Her weight increased by 2 kg one week

later, and then by 3.6 kg two weeks later. She demanded a reduction of the target weight level. When the weight increased continued at an average of 0.5 kg per day, the target value was reduced to 32.0 kg after consultation with a specialist of eating disorder. She stopped complaining from the third week, and became friendly with another patient. She would consume bread crusts or some snacks. She developed a tendency to overeat, consuming leftover food. When admonished by a nurse, she insisted she had not. As her weight increased, she worried about not being able to keep an ideal figure and would put her hands around her waist and pressed against her abdomen, often observing herself in a mirror. On medical examination by a specialist, the hospital decided that if her weight increased to 32 kg, she could be discharged. She was made to promise that she would be hospitalized again if her weight fell below 30 kg.

### III Discussion

There are only a few reports about the complication of eating disorder and Asperger's disorder in Japan, reported by Sato (2000) and Ota (1999). This patient was first examined for Asperger's syndrome. She had usually played alone and had no friends. She was deeply attached to routines and panicked if another person made her stop. She was awkward with her fingers but became independent showed no problems with social adaptation. These symptoms were thought to apply to "A disorder of uncertain nosological validity, characterized by the same type of qualitative abnormalities of reciprocal social interaction that typify autism, together with a restricted, stereotyped, repetitive repertoire of interests and activities" and "This disorder is often associated with marked clumsiness" which are a criteria of ICD-10 (World Health Organization, 1992). This patient was thus diagnosed as having Asperger's syndrome. She was classified as Asperger's syndrome, DSM-IV-TR. This case meets the definitions of Asperger's syndrome: "lack of social or emotional reciprocity", "restricted repetitive and stereotyped patterns of behavior, interests, and activities" and "no clinically significant general delay in language (e. g., single words used by age 2 years, communicative phrases used by age 3 years)" (Shirataki, 1999). However, the IQ 70 by WAIS-R is the lowest intellectual level for

Asperger's syndrome.

The patient's weight was only 22.8 kg at the time of hospitalization, which was 45.6% of the average weight, and amenorrhea had continued for two years. She was thus regarded as suffering from eating disorder, with the criteria of anorexia nervosa including abuse of laxatives. Her low weight state continued since its onset ten years earlier, with little effect of counseling and psychoanalysis. The recovery of eating disorder patients examined at Tokyo Women's Medical College over ten years totaled 73%, with the death rate at about 5%. This death rate is higher than other patients with mental disorder. The recurrence rate of eating disorder ranges from 29.5% to 4%, with the recurrence time being less than 1 year in most cases (Watanabe, 2001). In addition, of 234 patients with eating disorders who were examined from 1991~1996, a total of 56% recovered completely during 4-10 years with the death of them (Nakai, 2002).

For the present patient, intravenous feeding injection was effective for weight gain, and the patient was asked to a weight as the reaction was very poor, and the communication was difficult, the specialist decided that only simple instructions could be given. The hospital staff allowed her to set the target weight and strictly made her enforce it. A specialist of eating disorders consulted with the patient and the family. This combination of strict adherence to medicine regimen and gentle consultations with the specialist produced a good result. Though there is possibility of a recurrence, the patient was able to escape from a life crisis state in a short term. Behavior therapy at the time of the hospitalization is considered to be important.

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