

11-Year-Old Boy with Panic Disorder Responding to Paroxetine

Yasuyuki TAMAI and Hideo MATSUMOTO

Department of Psychiatry and Behavioral Science, Tokai University School of Medicine

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We experienced an 11-year-old boy with panic disorder responding remarkably to paroxetine. Only a few studies have reported the clinical application of selective serotonin reuptake inhibitors (SSRIs) on children with panic disorder. In Japan, there are reports of child depression, autism, and school phobia; no study has focused on paroxetine treatment for children with panic disorder. Therefore, the case is discussed in this study.

Key words: panic disorder, child, paroxetine, SSRIs

INTRODUCTION

The current mainstream of treatment for adult mood disorder is selective serotonin reuptake inhibitor (SSRI) or serotonin noradrenalin reuptake inhibitor (SNRI). On the other hand, no standards, including the appropriate dosage, have been developed for the treatment of child depression and anxiety disorders [1-3]. In particular, few studies have been conducted to examine paroxetine treatment in children with panic disorder, including Masi [4] and Wagner [5]; while there are unfortunately none in Japan [7], there have only been several studies investigating the use of fluvoxamine for the treatment of child panic disorders [6]. The present study thus discusses an 11-year-old boy with panic disorder responding remarkably to paroxetine. Prior to the study, oral consent was obtained from the patient and his family. To protect the privacy of the child, facts have been changed only to the extent that scientific deliberation is not affected.

CLINICAL MATERIAL

At his first examination, the boy was 11 years and six months of age (in the sixth grade of elementary school). Family members consisted of a third grade junior high school sister, father (43 years), and mother (32 years). He was born by normal labor, weighing 3,160 g at birth. During infancy he was given maternal milk, and showed no particular problems in terms of head control and the beginning of walking. He did not go through the first rebellious phase and was quiet and easy to bring up.

In early September of the year when he was in the second grade of elementary school (seven years, six months of age), the odor of food during lunch at school bothered him and he became nauseous. After the incident, he was also bothered by the odor of food during meals at home and was uneasy for two to three days. He stopped eating lunch at school in the second grade, was able to eat slightly in the third grade, and once again was unable to eat at school from the fourth

grade. As a result, the child only attended morning classes at school.

He started becoming unsteady from the age of 10 years and seven months (October XXXX) and experienced shortness of breath and a feeling of choking. Finally, he suffered breathing difficulty, palpitation, cold sweat, and coldness of limbs for about five minutes twice a day, which frequently occurred before and after school, as well as occasionally at night. The patient was also afraid of vomiting.

As he developed school phobia and stopped going to school from the age of 11 years and six months (September [X + 1]), and was brought by his mother to our hospital with complaints of being "unable to eat at school and outside the home."

PSYCHOLOGICAL TESTS

Rosenzweig Picture Frustration Study (P-F study), Rorschach Test, and Children's Manifest Anxiety Scale (CMAS) were carried out. The overall findings were: average intelligence, high demand level, dependent, difficulty in self-expression, and susceptible to anxiety (anxiety score on CMAS is 25 points, indicating a high level of insecurity). No tendency towards depression was found.

TREATMENT AND PROGRESS

Based on the current medical history and psychological test results, the patient was diagnosed with panic disorder with agoraphobia according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Text Revision(DSM-IV) [8]. At the beginning, pharmacological therapy was not given according to the wishes of the patient and family, and instead, the child was placed on supportive psychological treatment. The patient and his family requested supportive therapy. We usually did not apply the typical cognitive behavioral therapy to young children, because they are too young to be applied it. So the patient and his parents were given a cognitive behavior oriented therapy in which the understanding for panic attacks was

deepened. Unfortunately, the patient was still suffering panic attacks including palpitation and feeling of breathing difficulties; when severe, each attack lasted as long as 20 to 30 minutes, which occurred three to four times a day. For this reason, the patient and his parents were given an explanation of the conditions in November [X + one], and 10 mg/day of paroxetine was prescribed with their consent. At this time, the boy was 142 cm tall and weighed 31.5 kg.

Ten days after starting the prescription, his attacks decreased by more than half, and at three weeks, his attacks disappeared, although he did experience signal symptoms of attacks once in several days. At 10 days, paroxetine was increased to 20 mg/day and his attacks disappeared completely. In the following month, the patient began to say that he was enjoying his life every day. Although he did suffer an attack once while out during winter holidays, he resumed going to school and also played with his schoolmates from January [X + two]. The authors additionally prescribed alprazolam 0.2 mg to take during attacks.

The patient demonstrated no problems and adjusted normally upon advancing to junior high school. The authors explained to the patient and his family information currently available at that time [9, 10] i.e. that the use of paroxetine for the treatment of depression in patients under 18 years of age may increase suicide risk. With their consent, the therapy was continued with the dosage reduced from 20 mg/day to 10 mg/day. Although the patient again suffered one attack while dining out during the summer of the same year, as there were no further attacks, and drug therapy was ended in December [X + two] after discussion with the patient and his family.

In January [X + three], the patient suffered an attack and developed school phobia again. The prescription of paroxetine 20 mg/day was resumed. His school phobia continued for some time, saying he was afraid of attacks. He resumed going to school from February [X + three], taking 0.2 mg of alprazolam before going to school. He suffered an attack while on a three-day, two-night school outing in September of the same year, but this was controlled by taking alprazolam 0.2 mg twice. Thereafter, he has been attending school every day, admitting that "school is fun." Although he suffered an attack in March [X + four], his attacks have been controllable by alprazolam. He has gone into high school and now has a girlfriend. As of July [X + four], he is currently on maintenance therapy.

DISCUSSION

Presently, only very few studies have reported SSRI treatment for child panic disorders. In Japan, no studies have focused on paroxetine treatment for such diseases while there have been studies discuss-

ing child depression, autism, and school phobia, in which fluvoxamine treatment for panic disorders has been investigated. The young subject in the present study developed typical panic symptoms, to which the prescription of 10 mg to 20 mg/day of paroxetine provided remarkable improvement without any adverse events. Attempts were made to discontinue medication upon improvement of the symptoms; however, due to the recurrence of symptoms after discontinuation of therapy, the patient is currently still taking the medication.

The authors explained to the patient and his family information currently available at the time, i.e. that the use of paroxetine for the treatment of depression in patients under 18 years of age may increase suicide risk. With their consent, the therapy was continued. Later, the contraindication of paroxetine for the treatment of depression in patients under 18 years of age was lifted. The patient's progress needs to be followed-up in terms of the effects of paroxetine while exercising thorough caution against adverse events, which have not been seen as of now. There is also a need to consider when to reduce and end paroxetine administration.

REFERENCES

- 1) Masi G, Pari C, Millepiedi S: Pharmacological treatment options for panic disorder in children and adolescents. *Expert Opin Pharmacother* 7(5): 545-54, 2006 Apr.
- 2) Wagner KD, Berard R, Stein MB, Weatherhold E, Carpenter DJ, Perera P, *et al.*: A multicenter, randomized double-blind, placebo-controlled trial of paroxetine in children and adolescents with social anxiety disorder. *Arch Gen Psychiatry* 61(11): 1153-62, 2004 Nov.
- 3) Murphy TK, Bengtson MA, Tan JY, Carbonell E, Levin GM: Selective serotonin reuptake inhibitors in the treatment of pediatric anxiety disorders: a review. *Int Clin Psychopharmacol* 15 Suppl 2: S47-63, 2000 Aug.
- 4) Masi G, Toni C, Mucci M, Millepiedi S, Mata B, Perugi G: Paroxetine in child and adolescent outpatients with panic disorder. *J Child Adolesc Psychopharmacol* 11(2): 151-57, 2001 Summer.
- 5) Wagner KD: Paroxetine treatment of mood and anxiety disorders in children and adolescents. *Psychopharmacol Bull* 37 Suppl 1: 167-75, 2003 Spring.
- 6) Kano K and Arizaka O: 14-year old girl with panic disorder responding to fluvoxamine. *Japanese Journal of Pediatrics* 57-11: 2301-04, 2004.
- 7) Kano K: Clinical use of SSRIs and tandospirone in children with psychogenic illnesses. *Japanese Journal of Pediatrics* 55-2: 149-54, 2002.
- 8) American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition Text Revision; DSM-IV-TR*, 2000.
- 9) SSRIs: suicide risk and withdrawal. *Lancet* 361(9374): 1999, 2003.
- 10) Duff G: Message from professor G Duff, Chairman of committee on safety of medicines.