

Review

A Case of Remission of Childhood-onset Fluency Disorder Induced by Selective Serotonin Reuptake Inhibitors (SSRIs) Following Successful Treatment with Benzodiazepines

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Abstract

We experienced a case in which a benzodiazepine drug was effective for the onset of childhood fluency disorder.

Though the case was mild from the infant stage, there was anarthria.

The patient developed interpersonal tension just before high school.

The patient had been suffering from interpersonal tension, and since coming to our hospital, prescribed a relatively large amount of a benzodiazepine.

Then, the benzodiazepine antianxiety agent was accidentally effective for the childhood onset fluent disorder.

The possibility in which the case which shows the effect in which the benzodiazepine drug is strong for the childhood onset fluent disorder like this case latently exists is considered.

In conclusion, SSRIs (selective serotonin reuptake inhibitors) have been shown to reduce the severity of STSS.

key words

childhood-onset fluency disorder, benzodiazepine derivatives, selective serotonin reuptake inhibitors, partial epilepsy

Introduction

In Europe and America, the childhood onset fluent disorder has been actively studied as an important disease.

It has been regarded as a hereditary disease due to its high familial aggregation.

Childhood-onset fluency disorders occur between the ages of 3 and 6 years and are observed in 5% of children and 1% of adults.

It is possible that it is similar to the partial epilepsy, because there are many examples of remission by the adult like this.

It is also said that the number of males is 4 times higher than that of females after childhood.

Compared with normal averages, children with childhood-onset fluency disorders are 3 times more likely to have childhood-onset fluency disorders. 12).

Adults may also have fluency problems, such as from a stroke or extreme head banging. 13).

The search for loci for childhood-onset fluency disorders is now more rapid than the study of multiple cases in families.

Many loci for childhood-onset fluency disorders have been discovered, and childhood-onset fluency disorders are considered to be a syndrome caused by many factors. 12).

The acupuncture and stellate ganglion block therapy were effective for the childhood onset fluent disorder.

This suggests that the childhood-onset dysfluency of the case is sympathetic overtone.

Such examples are also likely to be included.

Cases

(Case) 46 years old, male, right-handed (father, mother, elder sister are also right-handed)

(Family history)

Parents, siblings, and relatives do not have childhood-onset fluency disorder or epilepsy.

When he was in high school, his father was taken to the psychiatric department of a university hospital by his grandfather, who was extremely strict, because he did not go to school and played around, and was diagnosed with personality disorder (no medication was given).

However, it is highly likely that his father was also suffering from an autistic

xtram disorder due to his extremely stiff nature.

Although his father was strict with his mother, he was very kind to his children, and I have no memory that his father scolded him.

The father also had the unhealthy heat sensation like the case.

My father also ran a fast sprint.

(Character)

He is a very stiff, nervous, kind, honest, friendly and hardworking person.

(Medical history) None

(Medical history and life history) The patient was a 24 year-old child and his father was 25 years old. There is no particular information about the perinatal period.

Parents and relatives have never told about epilepsy in infancy and early childhood such as febrile convulsion.

It is somewhat likely that his father was absorbed in gambling and did not work, and that his mother worked alone to cover the household expenses, and that the stress caused by this family discord was on the case.

Until I was in kindergarten, I was a very crybaby, and every day, especially in the evening, I cried for hours without any reason.

In addition, at kindergarten, he could not walk a very short distance from the bus stop to his house because he was taken off from the kindergarten bus, and he always cried at the bus stop.

Although he attended kindergarten only for one year, he only went to kindergarten about 10 times because he was very unwilling to go to kindergarten and because of prolonged rubella.

When she was in kindergarten, she was talked to by a girl, but she could not speak, and it seems that she was ridiculed for her dysfluency.

When he entered elementary school, he was the second tallest in the class.

When they are in elementary school, they don't cry at all, and they start running from home to school (about 15 minutes for first graders).

I was not good at interpersonal relations.

He had no close friends until he was in first grade.

In his second year of elementary school, he made friends with his classmates through the mediation of his parents. After school, he started playing together almost every day.

The friend was a very gentle person.

Since he was in elementary school, he had some dysarthria such as difficulty in distinguishing between "ki" and "chi."

He says it still continues, but he didn't know how to pronounce "Earth."

The patient still has unclear pronunciation and is very poor at making phone calls.

When he was in the lower grades of elementary school, he had a habit of adding "Ne" at the beginning of the class, and he was often pointed out by the teacher, but it was not improved easily, and I remember that it was the fourth grade of elementary school that improved.

It seems that he was easy to say when he first added "Umm."

I have never been bullied, either because I was in the country or because I was very good at mathematics.

"In the evening, I feel dizzy and lose my sense of reality," and "When I eat dinner, I feel like I'm going to stop my chopsticks for a few minutes to ten minutes," occurred frequently in the first year of elementary school.

These seizures stopped at the end of the fourth or fifth grade.

He was not good at exercising because he could not pull out his strength well.

In the third grade of elementary school, he was ridiculed for his clumsy way of running, and was nicknamed 'decimbattan' for his way of running.

Although he did not do any training, he learned that he had developed a muscle bump on his upper arm in the third grade of elementary school.

Since the body fat is very small, it is thought that the bump was conspicuous.

He had been told since he was in elementary school that his surprising reaction was much stronger than that of ordinary people (16).

The head circumference was large.

He was also afraid of going to the bathroom at night when he was in elementary school.

The fear of blasphemy was stronger than in elementary school.

In the fourth grade of elementary school, he noticed that his abdominal muscles were very tight and that it was safe to be hit hard on his abdomen.

They also realize that almost no one can do any kind of abdominal exercise.

In the fourth year and fifth grade of elementary school, it became a topic of conversation that his face was severely distorted when he ran.

The growth was rapid, and the growth of the height was almost finished in the early first year of junior high school, and in the first year of junior high school, the 50m run became the fastest in the school year.

He ran fast in short distances but was not good at long distances.

When I was in junior high school, I was ridiculed several times by my close friends for having continuous speech fluency disorder, but I was a close friend and didn't care much.

In the second year of junior high school, sleep paralysis occurred occasionally.

It is not until you realize that the first word does not come out in your first year of high school.

It is assumed that the continuous occurrence changed to the persistent one. They suffer much more from fluency disorders.

In September, he frequently left school early before Japanese class because the first word did not come out during Japanese class, and many times he refused to go to school.

When I was in high school, I learned that when I was stressed out, my fluency problems got worse.

His science and mathematics were excellent, but his English scores were very poor.

He did not study math at all and only studied English, but his English score was always the worst.

His Japanese score was also poor.

The case thought that the language system was not good by nature.

Since junior high school, people have been talking about the funny pronunciation of English.

When I was in high school, I was often told that I didn't understand irony and dislike.

It seems to have existed in the first half of his college days and his junior high school days, but there were many cases in which he realized or was pointed out that his mouth was strained because of the strength of his mouth.

In addition, it was often pointed out that the patient had a funny expression on his face, although he only had to be aware that his face was strong.

At the end of his third year of high school, he developed interpersonal tension.

At the time of the second exam, he got extremely nervous and failed to enter T University, which was his desired school.

Due to personal tension, the preparatory school will leave the school in 2 months and return to their hometown.

Then he roamed.

He wandered around the country and lost his ambition to enter the former imperial university.

When I was in college, I was asked to read English during my English class, and I was embarrassed because I could only read 辿々 because of my poor English.

In addition, during his college years, he had to repeat the same year because it was very difficult to attend crowded classes due to interpersonal tension.

I hardly had friends when I was in college because of interpersonal tension.

When I was in college, I learned from the Internet that acupuncture and stellate ganglion block are effective for fluency disorders.

In particular, stellate ganglion block was very effective for both fluent disorder and interpersonal tension.

In his fourth year of university, he was released from school after repeating a year, and was hospitalized for 2 months due to a fractured skull caused by a motorcycle accident involving a head-on collision with an oncoming car (post-traumatic amnesia occurred for 4 and a half days).

Brain MRI was performed at this time, but there was no special mention.

After the accident, she came to our hospital because of interpersonal tension.

The author becomes the family doctor, and the administration of the

benzodiazepine drug is started.

Cloxazolam, flurazepam, lorazepam, clorazepate, flunitrazepam, flutoprazepam, ethyl lofazepate, clonazepam, alprazolam, etc. were prescribed, but except for ethyl lofazepate, clonazepam, alprazolam, they showed good effects on fluency disorders.

It is assumed that alprazolam had anticholinergic effects, but his dysfluency worsened markedly when he took it. 8).

The effects of ethyl lofazepate and clonazepam were very weak.

Amitriptyline was prescribed, but when 1 tablets were taken, the patient slept for 24 hours, and for about 3 days, the disturbance of fluency became severe and the medication ended in 1 doses.

As a result of various groping, it settles in the prescription of bromazepam 20 mg / day, diazepam 15 mg / day, etizolam 3 mg / day, flunitrazepam 2 mg / day.

Although benzodiazepines were dramatically effective in treating fluency problems, interpersonal tension was a problem because it was less than 10 minutes.

After graduating from university, he found a job as a programmer who had studied by himself in college.

The programmer thought he could do it alone at home, but the case was disappointed that he had to do it at work.

I had little to talk about because I was a programmer, but I was tense.

He had to take a large dose of a benzodiazepine to relieve interpersonal tension.

On days off, he did not take benzodiazepines.

It was also, therefore, a life of going back and forth between the company and the apartment.

The fact that he was absorbed in making his own software on his day off, regardless of his work at work, is also a reason for his autistic lifestyle.

The case was used by dissolving in the oropharynx just before the benzodiazepine drug was talked by telephone, etc.

The case claimed that absorption through the oropharyngeal mucosa is rapid and effective because it does not cross the liver but directly into the brain.

The case is very hot for about 40 minutes when performing sympathetic stimulation, I. e., when arriving at work, eating lunch, or taking a bath.

The patient was suspected of having a pheochromocytoma and underwent a blood test, but was told that the levels of dopamine, etc. had not increased at all, that the sympathetic nerves were very sensitive, and that the patient did not have a pheochromocytoma.

I remember that this unhealthy heat sensation was not very well remembered when I was in elementary school, and it became more remarkable than in junior high school or high school.

At the age of 32, the patient suffered from influenza and took 10 tablets of loxoprofen sodium, but the fever did not go down at all. The patient took 4

tablets of diclofenac sodium, which relieved the fever and relieved the pain. However, the patient was still suffering from insufficient relief of the pain. In addition, the patient took 1 more tablets, and the fever went down and became comfortable.

However, after 2 hours, the temperature rose again and it became difficult to take the medicine, and 4 tablets of diclofenac sodium were taken again to ease the fever, but it was insufficient, and 1 more tablets were taken to ease the fever.

Thus, the patient was very resistant to the drug.

(The influenza of this year was very severe.)

When he was 32 years old, he took about 6 packs of cold medicine and went to the company in the morning before he left the company, thinking that 1 packs of cold medicine was enough, and that he was very strong in medicine.

On that day, when I was having lunch at work, I held a plate of food in front of my head and left it there for about 10 minutes.

It was hard to believe that the case was told at a later date, so I asked several people, and they agreed that it was true.

The president of the company told me that it was probably an aftereffect of a traffic accident when I was a college student, but there was nothing to be noted about the head MRI, brain waves, intelligence, etc., and only a strong impairment in memory retention was seen.

His ability as a programmer in the case was extremely high, especially from the president.

It was prescribed to claim that risperidone and olanzapine were effective for interpersonal tension on the Internet, but they were not effective for interpersonal tension and fluency disorders only with side effects.

On the day I worked for the company, I felt very tired after taking 1 mg of risperidone, and I used to lie down on the sofa for about 2 hours before going home.

He says that the dose was too high because there was little general fatigue and sleepiness, but he had an attack while taking olanzapine or driving.

While driving with a 1 year-old child in the passenger seat, he suddenly lost consciousness.

He was an avid fan of F1, and even played F1 racing videos as background music at work.

The TV had not seen anything but F1 for more than 13 years.

Therefore, he liked manual transmission very much, he was a car with manual transmission, and as soon as he had a seizure, he might have been unconsciously put into neutral.

However, there was a warning sign, and it was most likely that he stopped his car at the edge of the road and had amnesia due to an attack, and had no memory of the warning sign.

The car was not damaged, of course.

There were no penalties for traffic violations.

I later thought that a police officer had come to the place where the child was crying in the baby chair.

He was taken to a brain surgery hospital by a police officer.

The patient had no memory of being transferred to a brain surgery hospital.

When he arrived at the hospital, he had recovered consciousness, but he was semi-conscious. A head MRI was taken at the hospital and no abnormalities were found.

Events in the hospital have partial memories.

It is more like an episode during lunch than there is no memory of the aura.

The case was examined in detail on the Internet with the intention of curing the interpersonal tension, and it was known that SSRIs are effective for the interpersonal tension, and the prescription of SSRIs is strongly desired.

Though various SSRIs such as paroxetine 2,11) and sertraline6) were prescribed, they were not effective for interpersonal tension.

However, during this time, the patient learns that the fluent disorder has been remitted.

The case is not troubled by the fluent disorder, and it is not known which drug led to remission of the fluent disorder.

The case was highly distressed by interpersonal tension, and the fluency disturbance was hardly distressed because of the effectiveness of benzodiazepines, and she was hardly happy with the remission of the fluency disturbance.

The case itself claims to be a typical Autism Spectrum Disorder : "I can't read the atmosphere, I can't understand people's minds, I have unhealthy stiffness, I have unhealthy clumsiness of fingers and physical movement, I have unhealthy clumsiness of personal relationships, and I can't talk in the eyes of people." (From my point of view, I think it is Autism Spectrum Disorder.).

Considerations

Since the case was an autism spectrum disorder, it is assumed that the patient had low stress tolerance, had an anxiety disorder from an early age, and had abnormally strong muscle tone, which caused symptoms such as dysarthria, inability to perform abdominal muscle movements, and awkward running.

However, it is possible that the family was extremely poor in the young age of the case, family discord was extremely intense, the father and mother had quarrels almost every day, and the abdominal muscles were hard due to the stress.

The cases still do not distinguish between "ki" and "chi," and cannot be seen when typing "earth" on the keyboard.

Because the patient has some form of epilepsy, it is possible that benzodiazepines may be effective in treating fluency problems. However, because the intense muscle tone associated with anxiety disorders is mediated by benzodiazepines, a mechanism that may be effective in treating fluency disorders is also conceivable. No literature was found to suggest an association between epilepsy and fluency disorders. However, there is an article (14) that states that the antiepileptic drug levetiracetam is effective in patients with concomitant fluent disorders and partial epilepsy, and this case may be applicable. In the United States, brain surgery is performed for fluency disorders. It is because the organic functional failure of basal nuclei seems to be a basis of the fluent failure (7). Recently, since vagal stimulation makes it difficult for epileptic seizures to occur, surgery for vagal stimulation is frequently performed. (15). This mechanism may also be responsible for the effectiveness of acupuncture, stellate ganglion block, and benzodiazepines in patients with fluency problems. Because of their dependence, benzodiazepines are generally considered quasi-drugs in the West, and some people are arrested for possession without prescription. Although the study of fluency disorders has been much more active in the West than in the past, this may be the reason why no papers have been found to show the efficacy of benzodiazepines for fluency disorders. Though it is a benzodiazepine drug in Europe and America, alprazolam and clonazepam are frequently prescribed. However, alprazolam has an anticholinergic effect, and as far as I know, most of the patients with childhood-onset fluency disorder have severe fluency disorder like the case. (8). In addition, the patient had taken clonazepam, but could not feel its effect. In Western countries, alprazolam is most commonly used as a less addictive benzodiazepine, and it is believed that benzodiazepines are recognized as a more severe form of fluency disorder. Clonazepam, an antiepileptic drug, is a long-standing benzodiazepine that is prescribed relatively frequently in Western countries. However, no reports have been found to show efficacy in patients with fluent disorders. He also noted that clonazepam had no effect on stuttering. Clobazam, another antiepileptic drug, is a relatively recently marketed benzodiazepine that has also not been reported to be effective in treating fluent disorders. Whether there are a small number or a large number of cases in which benzodiazepines have dramatic effects on fluency disorders as in the case of the case, it is rare that benzodiazepines are prescribed except for alprazolam

and clonazepam, which are regarded as quasi-drugs in Europe and the United States and have little dependence on them.

It may also be thought that benzodiazepines aggravate fluency problems, particularly because of alprazolam, which, because of its anticholinergic effects, makes fluency problems worse, even temporarily.

There is a report that the fluent disorder was reduced by SSRIs such as fluoxetine 9), paroxetine 2,4,11) and sertraline 3,6).

However, there is also a paper (5,10) in which sertraline causes a fluent disorder.

The patient had been taking several SSRIs, and was in remission of fluency, although he had no idea which drug was effective.

COI : There are no COIs to be disclosed.

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