CASE REPORT

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Brexpiprazole for a Patient with Ekbom Syndrome with Intolerable Side Effect of Aripiprazole

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ABSTRACT

Ekbom's syndrome (ES), also referred to as delusional parasitosis, is a psychiatric disorder that is relatively uncommon. It is characterized by a robust and unwavering belief in infestation despite the absence of predominant hallucinations or formal thought disorders. Ekbom syndrome presents in 2 main forms: primary, marked by delusions and abnormal tactile sensations; and secondary, where symptoms arise due to another underlying organic condition. In primary ES, the therapeutic approach primarily relies on antipsychotic (AP) medications. This article presents a case with primary ES showing that atypical APs with aripiprazole and brexpiprazole effectively treat this disease. Brexpiprazole, compared to aripiprazole, induced less tremor and akathisia in the case report, suggesting it might be more suitable for treating this condition.

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INTRODUCTION

Ekbom syndrome (ES), also known as delusional parasitosis, is a rare psychiatric disorder in which the patient has the mistaken and unshakable belief that their body, primarily the skin, is infested with small organisms or insects.[1]

Ekbom syndrome has 2 main forms: primary (a disorder characterized by delusions and abnormal tactile sensations) and secondary (symptoms caused by another defined organic or pre-existing psychiatric disorder, or substance abuse).[2] The therapeutic approach in primary ES is mainly based on antipsychotic drugs. Secondary ES may benefit from treatment of the underlying disease.[1]

Although antipsychotics (APs) are the mainstay of treatment for primary ES, no AP is approved for this use and there is no strong evidence to suggest that the use of 1 specific AP is more effective than another.[1] A recent systematic review indicates that patients using atypical APs have higher rates of complete remission and lower rates of non-efficacy than patients using typical APs.[3]

This case report presents a patient with primary ES and shows that atypical APs (aripiprazole and brexipiprazole) effectively treat ES. Compared to aripiprazole, brexipiprazole causes less tremor and akathisia and is more suitable for ES.

CASE PRESENTATION

Ms. A was a 58-year-old widow from Taroko, Taiwan, and had no past personal or family history of mental illness. She denied any severe illness and only took analgesics for lumbosacral spondylosis.

She was admitted to the acute psychiatric ward for the first time, complaining of spiders laying eggs and small spiders crawling on her body. Then she heard the sound of spiders crawling and felt the itching sensation of spiders crawling, which made her uncomfortable, depressed, and unable to sleep.

During the admission examination of her mental status, it was observed that her consciousness was clear and oriented. She presented with a neat appearance and a cooperative attitude. Her attention was focused and sustained throughout the assessment. Her affect appeared restricted, and her mood was noted to be depressed and anxious. In terms of behavior, she displayed mild rigidity. However, her speech was relevant and coherent. There was evidence of a parasitosis delusion in her thought content, but no significant formal thought disorder was detected. Additionally, she reported auditory, visual, and tactile hallucinations during the examination. Her drive was characterized by poor sleep patterns but a fair appetite. In terms of insight, she demonstrated an inadequate understanding of her condition. Overall, her judgment and mental activity were considered fair during the assessment.

A battery of tests was scheduled to rule out organic causes. The complete blood count, and biochemical, nutritional,

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and endorse all within normal limits. Blood alcohol and urine drug screens showed no positive findings. Brain magnetic resonance imaging scan showed senile cortical atrophy. The Cognitive Abilities Screening Instrument score was 75 (cutoff score 70). Ophthalmic examination revealed a spot of hyperpigmentation in the right eye at 7 o'clock with vitreous adhesion indicating lattice degeneration. A dermatologist was consulted for a skin examination, which revealed extensive erosions and scabs, with scratches on the forehead and wrist, but no evidence of parasitic infection.

Ms. A was diagnosed with primary ES and was treated with aripiprazole 15 mg daily. After a week of aripiprazole medication and behavioral therapy, she reported that the spiders were no longer laying eggs. After 2 weeks, the hallucinations disappeared. Although she believed the spider was alive inside her, she was visibly less distressed.

However, after 1 month of treatment, she stopped taking the medication due to intolerable tremors and akathisia. Ms. A complained of a compelling urge to move her legs, accompanied by inner restlessness and an inability to sit still. These symptoms led to difficulties in concentrating and worsened her sleep. One month after stopping the treatment, the itching became worse again. She was again admitted to our psychiatric ward due to extensive erosions and scabs on her forehead and wrists. Antipsychotic treatment was changed to brexipiprazole 2 mg daily. After treatment with brexipiprazole and behavioral therapy, her psychotic symptoms improved without the side effects of tremors and akathisia.

We discharged the patient to outpatient treatment and continued to give brexipiprazole 2 mg for 2 months. We attempted to taper brexipiprazole to 1 mg on an outpatient basis, but her ES recurred within 1 month. Therefore, we adjusted the drug back to 2 mg and continued to use it for half a year. Ekbom syndrome no longer recurred, and no significant side effects were observed.

This case report received no institutional sponsorship or conflicts of interest among the authors. The patient reported in this article was well-informed of her rights and consented to participate.

DISCUSSION

Primary ES is a rare disease and difficult to treat. While the exact pathophysiological mechanism of ES is still unclear, its symptomatology, mainly delusions, suggests a close association with dopamine imbalance. Consequently, APs that primarily target the dopamine system are frequently chosen as the initial treatment for ES. A 2022 systematic review indicated that 9 types of atypical APs were used to treat patients with this disease.[3] The most commonly prescribed atypical APs were risperidone, olanzapine, and aripiprazole.[3] Overall, aripiprazole (dosage: 10-15 mg/day) had the highest complete remission rate at 79% (risperidone 0.5-4 mg/day: 43%, olanzapine 2.5-10 mg/day: 55%) although this rate was limited to 14 patients.[3]

Initially, aripiprazole was chosen for this patient due to its lower rate of metabolic side effects than other atypical APs and its added benefit of acting as a partial dopamine agonist, making it an adjunct useful in the treatment of depression.[4] Although aripiprazole achieved partial remission in the patient, noncompliance due to side effects of extrapyramidal symptoms led to a relapse of ES.

Brexpiprazole, like aripiprazole, is a partial dopamine agonist and was chosen for the next step in this patient's treatment. Brexpiprazole has more potent binding to serotonergic 2A, 1A, and alpha-1B adrenergic receptors than aripiprazole.[5] It may have similar efficacy but improved tolerability, particularly for extrapyramidal symptoms and activation.[5] As in the reported case, ES did not recur after the change, and no significant side effects were observed.

MAIN POINTS

- Although antipsychotics (APs) are the mainstay of treatment for primary ES, but no specific AP is more effective than another.
- Atypical APs (aripiprazole and brexipiprazole)effectively treat ES.
- Brexipiprazole causes less tremor and akathisia and is more suitable for ES.

CONCLUSION

We report the first case of primary SE successfully treated with brexipiprazole. Compared to its similar agent (aripiprazole), brexipiprazole contains fewer extrapyramidal symptoms and may be more suitable for treating this disorder. Our case report adds value to the literature that brexipiprazole can also be used in patients with this disease. Next, larger studies, such as randomized controlled trials, are warranted to better evaluate the efficacy and safety of brexipiprazole for the treatment of ES.

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