Improvement of Tardive Dyskinesia with Risperidone : A Case Report

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Abstract

This case report illustrates the improvement of tardive dyskinesia (TD) and psychotic symptoms in an elderly Thai female with chronic schizophrenia with a long history of conventional antipsychotic exposure following the treatment with risperidone 2 mg/day. TD disappeared in 9 months and continued to be in remission at her 5-month follow-up visit recently.

Key word : Tardive Dyskinesia, Risperidone, Schizophrenia

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Tardive dyskinesia (TD) is a delayed effect of antipsychotics. This disorder consists of abnormal, involuntary, irregular choreoathetoid movement of the muscles of the head, the limbs and the trunk. Perioral movements are the most common symptoms and include darting, twisting, protruding movements of the tongue, chewing, lateral jaw movements, lip puckering and facial grimacing[1]. Typical antipsychotic agents produce central nervous system effects, especially extrapyramidal symptoms (EPS) and tardive dyskinesia[2]. Currently, no single safe and effective therapy for TD exists though a variety of therapeutic agents, including some of the atypical neuroleptics, have been reported to treat TD successfully in some patients[1-4].

To the best of our knowledge and after extensive article review, this is the first report of much improvement of tardive dyskinesia following treatment with risperidone in Thai patients. There are, however, a few case reports in international journals on improvement of tardive dyskinesia with the use of risperidone[5,6].

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CASE REPORT

The patient was a 69-year old Thai woman with a 30-year history of schizophrenia. She had no major medical illnesses, apart from mild anemia and osteoarthritis of both knees. No tardive dyskinesia was in her past history and family history. She had received continuous treatment with typical antipsychotics, the last of which was haloperidol 4 mg/d. Although she had been taking trihexyphenidyl 4 mg/d and chlordiazepoxide 10 mg/d, she was observed to have severe extrapyramidal side effects for 2 weeks. Because of this, she was started on a trial of risperidone at an initial dosage of 0.5 mg/d increasing slowly while haloperidol was being tapered off gradually. The reason to switch these drugs was that haloperidol is one of the typical antipsychotic drugs, which sometimes cause severe extrapyramidal side effects. Risperidone is one of the atypical antipsychotics which usually does not produce extrapyramidal side effects at low dosage. During this time she underwent total right knee replacement operation and her surgeon gave her haloperidol 4 mg/d for a few days without asking for her psychiatrist's opinion. After being on this drug regimen (risperidone and trihexyphenidyl) for 2 months, she was observed to have tardive dyskinesia involving her mouth, tongue and face but her extrapyramidal side effects were diminishing. An increase of risperidone to 2 mg/d improved her psychotic symptoms as well as her symptoms of tardive dyskinesia. Trihexyphenidyl was discontinued 2 months after the patient stopped taking haloperidol. Within 9 months of receiving risperidone, her tardive dyskinesia disappeared completely and continued to be in remission at her 5 months follow-up visit recently.

DISCUSSION

This patient had some identifiable risk factors for tardive dyskinesia which were old age, being a female, the presence of EPS and chronic neuroleptic treatment[2,7].

The reason for switching from haloperidol to risperidone, which is a serotonin-dopamine antagonist, was that this elderly patient had severe EPS and that risperidone lacked extrapyramidal side effects at low doses (generally lower than 4 mg/d) and it also lacked anticholinergic side effects. Risperidone also provided cognitive enhancing effects[8,9].

The resolution of this patient's tardive dyskinesia might have been due to the substitution of haloperidol with risperidone. Stopping or reducing the dosage of neuroleptics has been suggested to obtain a favorable outcome on tardive dyskinesia[1,10,11]. The serotonin-dopamine antagonists including risperidone, may be used in patients with tardive dyskinesia since they reduce the abnormal movements and have the lowest risk of exacerbating the condition[1].

Tardive dyskinesia may be caused by dopaminergic receptor supersensitivity in the basal ganglia resulting from chronic blockade of dopamine receptors by dopamine receptor antagonists[1]. Kopala and Horner postulated that risperidone may reduce tardive dyskinesia by changing the balance between dopamine and serotonin in the basal nuclei[12]. The resolution of the tardive dyskinesia in this case suggests that risperidone should be considered in patients with neuroleptic-induced tardive dyskinesia. However, this observation calls for well-designed randomized studies to evaluate the efficacy of risperidone in treating TD systematically.

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REFERENCES

1. Kaplan HI, Sadock BJ. Kaplan and Sadock's Synopsis of Psychiatry : Behavioral Sciences / Clinical Psychiatry. 8th edition. Baltimore : Williams & Wilkins, 1998 : 1033-4.
2. Casey DE. Tardive dyskinesia and atypical antipsychotic drugs. Schizophr Res 1999 : 35 suppl : S61-6.
3. Zartrungpak S. Treatment of tardive dyskinesia with Vitamin E. J Psychiatr Assoc Thail 1996 : 41 : 261-70.
4. Egan MF, Apud J, Wyatt RJ, et al. Treatment of tardive dyskinesia. Schizophr Bull 1997 ; 23 : 583-609.
5. Rangwani SR, Gupta S, Burke WJ, et al. Improvement of debilitating tardive dyskinesia with risperidone. Ann Clin Psychiatry 1996 ; 8 : 27-9.
6. Chong SA, Remington G, Tan CH. Risperidone treatment of tardive dyskinesia and dystonia. Clin Psychiatry 1999 ; 60 : 340-1.
7. Caligiuri MP, Lacro JP, Rockwell E, et al. Incidence and risk factors for severe tardive dyskinesia in older patients. Br J Psychiatry 1997; 171: 148-53.
8. Schatzberg AF, Nemeroff CB. Textbook of Psychopharmacology. 2nd edition. Washington, DC : American Psychiatric Press, 1998 : 338.
9. Jeste DV, Rockwell E, Harris MJ, et al. Conventional *vs* newer antipsychotics in elderly patients. Am J Geriatr Psychiatry 1999 ; 7 : 70-6.
10. Casey DE. Spontaneous and tardive dyskinesias : clinical and laboratory studies. J Clin Psychiatry 1985 ; 46 : 42-7.
11. Sherr JD, Medoff D, Thaker G. Neuroleptic discontinuation and tardive dyskinesia risk. Am J Psychiatry 1999 ; 156 : 1125.
12. Kopala LC, Horner WG. Schizophrenia and severe tardive dyskinesia responsive to risperidone. J Clin Psychopharmacol 1994 ; 14 : 430-1.

อาการทาไดฟ์ดิสไคนีเซียดีขึ้นโดยยาริสเปอริโดน : รายงานผู้ป่วย 1 ราย

ศิริรัตน์ คุปติวุฒิ, พ.บ., ธานี เศรษฐจันทร, พ.บ.**

รายงานการรักษาอาการทาไดฟ์ดิสไคนีเซียในผู้ป่วยสูงอายุ 1 ราย ด้วยยาริสเปอริโดน ขนาด 2 มิลลิกรัมต่อวัน ผู้ป่วยรายนี้ป่วยเป็นโรคจิตเภทเรื้อรัง และได้รับการรักษาด้วยยารักษาโรคจิตแบบดั้งเดิมต่อเนื่องกันเป็นเวลานานหลายสิบปี ภายหลังจากที่ปรับเปลี่ยนยารักษาโรคจิตใหม่เป็นริสเปอริโดน อาการโรคจิตเภทและอาการทาไดฟ์ดิสไคนีเซีย ดีขึ้นเรื่อย ๆ จนหายไปในที่สุดภายใน 9 เดือน และดีต่อเนื่องในช่วงติดตามการรักษาจนถึงปัจจุบันเป็นเวลา 5 เดือน

คำสำคัญ : อาการทาไดฟ์ดิสไคนีเซีย, ยาริสเปอริโดน, โรคจิตเภท

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