RISPERIDONE FOR ACUTE ORGANIC REACTION IN CORPUS CALLOSAL AGENESIS

Lt Col C HARIHAR *, Capt MAMTA SOOD +

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Introduction

Corpus callosal agenesis is a relatively common malformation which may be partial or complete. It is found increasingly now that non-invasive imaging techniques are used widely and may be associated with very little neurologic deficit. Rarely, psychiatric symptoms are associated with this condition. Use of Risperidone in such cases has not been reported so far. A case of corpus callosal agenesis presenting with psychosis and treated with Risperidone is therefore reported here.

Case Report

A 32-year old serving soldier was hospitalized at a military psychiatric centre on 06 Dec 97 for a psychotic breakdown of one month duration. His old medical documents revealed MRI evidence (dated Oct 95) of a partial agenesis of the anterior part of the corpus callosum. They also revealed that he was treated for disseminated tuberculosis from Dec 96 to Nov 97.

Psychiatric evaluation at admission (on 06 Dec 97) revealed him to be ill-kempt, disoriented, aphasic for comprehension, having exaggerated deep tendon jerks (DTJ) in his lower limbs and a patellar clonus. On mental status examination, he was found to be uncooperative, talking irrelevantly and suspicious due to which little rapport could be established. He manifested auditory hallucinations, irritable mood, shallow affect, impaired memory, impaired judgement and disturbed biological drives. His score on the Mini-mental status examination (MMSE) [2] was 15/30.

He was treated as a case of an acute organic reaction with oral haloperidol (HPL). As a result, his orientation and memory improved while his hallucinations and delusions too disappeared. His MMSE score improved to 28/30. Besides, his patellar clonus too disappeared and his DTJs in lower limbs improved to 'brisk' degree within a fortnight. After a month, he continued to manifest negative symptoms such as affective blunting, avolition and anhedonia. His HPL-induced extra-pyramidal symptoms (EPS) were severe and distressing. His anti-psychotic medication was therefore changed to Risperidone in the dose of 3mg b.i.d. He had subsequently made a substantial recovery with a steady attenuation of his EPS and improvement in his negative symptoms.

A medical evaluation was sought which ruled out any active tuberculous disease.

Discussion

This case highlights the unusual presentation of a defect in the corpus callosum as an acute organic reaction. The anterior location of the corpus callosal defect explains the frontal lobe neurobehavioral deficit symptoms, which were initially masked by the acute organic reaction and later by the HPL-induced EPS. Risperidone, by degressing the HPL-induced EPS, eased the diagnostic confusion, besides improving the patient's negative symptoms and thereby his mental condition as a whole. Risperidone is known to be associated with fewer EPS than the conventional neuroleptics [3]. Its advantages in terms of its rapidity of action, possible efficacy against negative symptoms and relative absence of EPS had been summarised in an earlier review article [4].

An ill understood aspect of this case is the occurrence of an acute organic reaction and the transient pyramidal tract lesions. Though temporally moot, the relation of CNS tuberculosis to the acute organic reaction cannot be totally ignored. Similarly, the disappearance of pyramidal signs coinciding with clearing of his sensorium in response to antipsychotic drugs too remains an enigma. A self limiting tuberculous vasculitis could possibly explain the occurrence of those transient pyramidal signs. Corpus callosal lesions due to their lateral extensions into the adjacent parts of the cerebral hemispheres are known to produce dysphasia and asymmetric pyramidal signs besides frontal lobe disturbance [5]. A repeat MRI could possibly have revealed any further extension of the corpus callosal lesion in this case; this indeed is a limitation of this study.

Use of Risperidone for conditions other than schizophrenia has so far been limited to occasional case reports. One such report described successful treatment with Risperidone in 7 patients with psychosis resulting from medical conditions such as renal

* Graded Specialist (Psychiatry), + MO (Psychiatry), Military Hospital, Jodhpur.

failure and anticardiolipin syndrome [6]. In another case report of a successful treatment of delirium in two patients, it was suggested that Risperidone may prove to be an effective alternative to haloperidol especially in the elderly and in the severely medically ill, who are more prone to adverse effects of HPL [7].

Administration of Risperidone in treating psychotic patients with suspected coexisting frontal lobe disease thus appears justified and deserves encouragement/further study. Risperidone's superiority over HPL in treating acute organic reactions is also apparent in this case.

REFERENCES

1. Brian GR, Neville. Paediatric Neurology: Agenesis of corpus callosum. In: John Walton, editor. Brain's Diseases of the Nervous System. 10th ed. New York: Oxford University press 1993:465.
2. Folstein MF, Folstein SE, Mc Hugh PR. Mini Mental State. A practical method for grading the cognitive state of patients for the clinician. *J Psychiat Res* 1975;12:189.
3. Bhan P. Risperidone: A new hope for the treatment of Schizophrenia. *Indian J Clinical Practice* 1997;7(10):23-6.
4. Grant S, Kitton A. Risperidone. A review of its Pharmacology and therapeutic potential in the treatment of schizophrenia. *Drugs* 1994;48(2):253-73.
5. Lishman WA. Organic Psychiatry-the psychological consequences of cerebral disorder. 2nd ed. Delhi: Oxford university press, with permission from Blackwell Scientific Publications 1987;19:654.
6. Furmaga KM, DeLeon OA, Sinha SB, Graviria M. Psychosis in medical conditions: response to risperidone. *Gen Hosp Psychiatry* 1997;19(3):223-8.
7. Sipahimalani A, Masand PS. Use of risperidone in delirium: case reports. *Ann Clin Psychiatry* 1998;9(2):105-7.