Acta Psychiatr Scand 1989:80:64–67

Key words: impaired gait; psychosocial impairment; tardive dyskinesia.

Functional impairment in tardive dyskinesia: medical and psychosocial dimensions*

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ABSTRACT – The author presents 22 patients with tardive dyskinesia who were referred to him through consultation. Several patients had functional impairment caused by their movement disorder. Impaired gait was noted in 6 patients, speech impediment in 3 and thoughts of suicide in 1. Psychosocial difficulties were reported in 12 patients. The author concludes that tardive dyskinesia can lead to difficulties in patients who are suffering from the severe form.

Received December 21, 1988; accepted for publication January 27, 1989

Several studies have been published indicating that tardive dyskinesia (TD) patients are not aware or do not suffer from their movement disorders. Alexopoulos (1) reported that none of his 18 TD patients complained of their movement disorder and 44% were unaware of their movements. Smith et al. (2) noted that 9 of 113 (8%) patients with moderate or severe TD were aware of their movement disorders as compared with 12 of 155 (8%) of their mild TD patients. On the other hand, Rosen et al. (3) noted that patients exhibiting severe TD were more aware of their symptoms than patients with mild symptoms. Recently, Lohr et al. (4) compared patients suffering from TD ($n = 41$) with neuroleptic-induced parkinsonism ($n = 13$), Huntington's chorea ($n = 23$) and Parkinson's disease with TD ($n = 18$). They found that all the patients suffering from Huntington's chorea and Parkinson's disease were aware of their movement disorders, while approximately one-third of patients with TD and two-thirds with parkinsonism were unaware of their movement disorder. They also found that the degree of self-awareness of their patients correlated positively with the orofacial dyskinesia score as well as the global dyskinesia score (4).

The author has initiated a TD consultation service at Douglas Hospital, with the aim of studying patients who suffer from their movement disorder. In this report, the first 22 patients referred are described, emphasizing the functional impairment caused by their movement disorder.

Material and methods

The TD consultation service was initiated at Douglas Hospital more than 3 years ago. All the patients referred to the author are evaluated using the Abnormal Involuntary Movement Scale (AIMS) (5), which describes TD on a 4-point scale of severity (0 = no TD, 4 = severe TD). In addition, the Simpson Rating Scale is used (6),

* Presented at the 14th International Conference of Law and Mental Health, Montreal, Québec, Canada, June 16–18, 1988.

which consists of 42 items divided into body areas: face (16 items), neck and trunk (7 items) and extremities (19 items). The scale varies in severity from absent (= 1) to very severe (= 6). After a thorough examination for TD is made, the patients' records are reviewed. The patient is then discussed with the treating physician and possible treatment modalities are suggested. This article will not deal with treatment methods but rather with functional impairment in TD.

Results

A total of 22 patients (9 men, 13 women) were referred to the author during a 3-year period by their treating physicians. The mean age was 59.5 years (range 33 to 80), for men 53.1 (range 35 to 80) and for women 63.9 (range 33 to 76). Twenty patients were aware of and complained of their symptoms to their physicians. Nine patients suffered from schizophrenia and 11 from affective disorder (6 delusional depression, 5 bipolar disorder) while 2 suffered from organic mental disorders (one from Alzheimer's disease, the other from mental retardation).

Manifestations of TD

Buccolinguomasticatory TD was the manifestation in 13 patients and the body was affected in 12 patients. Three patients were affected in all their body areas. The tongue was affected in 13 patients. Of these, the face and lips were also affected in 7 patients. The neck and shoulder were affected in 8 patients, the lower limbs in 7 patients and upper limbs in 4. Five of the 22 patients suffered from tardive dystonia (7).

Current neuroleptic medication

Chlorpromazine had been prescribed to 6 patients in doses varying from 50 to 400 mg per day. Trifluoperazine 10 mg per day was also prescribed for 2 patients. Fluphenazine (injectable) was given to 6 patients in doses varying from 12.5 to 100 mg every 2 weeks. Haloperidol oral was given to 6 patients in doses varying from 2 to 10 mg per day and haloperidol decanoate 500 mg every month was given to one patient. One patient received no medication at the time of the examination. Six patients received concomitant antiparkinsonian medication. Four patients received lithium carbonate 900 mg per day.

Complications of TD

We followed our previous classification of functional impairment in TD (8).

Impaired gait and posture. Of the 22 patients, 6 (2 men, 4 women) showed gait disturbances. Patients with pelvic gyration ($n = 3$), tardive dystonia ($n = 2$), and severe pseudoakathisia of the legs ($n = 1$) had difficulty standing and moving from one place to another. Three patients had frequent falling episodes, one of them sustaining a fracture of the radius.

Speech and eating problems. Three women had severe speech difficulties. These patients had severe TD involving the bucco-oral area. One patient with severe body TD had severe dysarthria. A second patient whose speech was interrupted at times complained of inability to finish sentences while speaking. A third patient would seem to lose her sentence while speaking and had to clear her throat to be able to restart the sentence. These 3 patients were diagnosed as suffering from bipolar disorder (2 patients) and delusional depression (1 patient). The speech blockage was caused by muscle spasm and was not the result of cognitive impairment or thought blockage.

In addition, a male patient had severe anterocollis that interfered with his eating and had to be spoonfed. He lost 9 kg in one month. Another patient was so worried about biting her tongue that kept protruding between her teeth that she was recurrently admitted to the hospital. Finally, a male patient had severe mouth opening that led to pain in the jaw muscles, with constant neck and headaches that did not respond to analgesics.

Suicide. One patient frequently thought of suicide because her TD movements embarrassed her.

Psychosocial. Twelve patients complained of embarrassment caused by their movement disorder. They felt that people were looking at them

on the bus, in the streets or in public places. None had clinical evidence of paranoid delusions, however. Two patients discontinued university courses and were forced to seclude themselves in their own apartments because they felt neighbors ridiculed them. Some family members reacted negatively to these movements and even fellow patients excluded several patients because they were grinding their teeth. The movements also interfered with hospital rehabilitation in 5 patients.

Discussion

This study indicates that moderate-to-severe TD patients tend to suffer from this movement disorder, especially gait and posture impairment. Six of the 22 patients developed severe gait disturbances so that even normal walking was difficult to maintain. In some patients, this led to frequent falls and may be another possible differential diagnosis of falling in elderly patients. Some patients sustained fractures from falling. Only one published study has examined gait disturbances in 42 TD patients (9), finding 18 with "peculiar gaits" and 9 with "frankly abnormal gaits", of which 7 had broad-based gait and two spastic gait abnormalities.

Speech impediment was present in 5 patients. This varied from occasional muffled speech to continuous dysarthria and complete incompehensibility. Speech abnormalities have been reported in 6 of 12 TD patients evaluated by speech therapists (10); temporal organization and voice production dimensions were most severely deviant, while deviation in articulation was less prominent. Trunk dyskinesia was more prominent in these patients than in those without speech impediment. This finding coincides with our only patient whose speech was completely unintelligible and who also had severe TD in almost every area of her body.

One of our patients developed pain in the jaw muscles as well as neck- and headaches. Bassett et al. (11) reported 2 patients who developed orofacial pain secondary to bucco-oral TD. Thus, TD should be considered in the differential diagnosis of orofacial pain in psychiatric patients.

Suicide as a complication of TD has rarely been reported. Recently, Gardos et al. (12) reported another possible suicide attempt secondary to TD. Patients should systematically be questioned about suicidal thoughts in relation to their movement disorders.

Twelve of 22 patients have reported that their movements embarrass them. Many of these patients are young and functional and the patients then withdraw and seclude themselves away from their peers. This may lead to readmission, as noted in some of our patients, or to staying longer in hospitals without discharge, and rehabilitation in these patients may therefore be more difficult (13).

It was interesting that half of the patients suffered from affective disorder. Several studies have indicated that TD is more common in affective disorder (14, 15). It is not known, however, whether patients suffering from affective disorder complain more than patients with a diagnosis of schizophrenia. It is possible to speculate that, in their euthymic periods, these patients may be more aware of their body movements than are schizophrenic patients.

In conclusion, TD patients, particularly those exhibiting moderate and severe forms of the movement disorder, suffer from several complications. Gait and speech difficulties in these patients may be to such an extent that they may interfere with their day-to-day activities and lead to a delay in their rehabilitation and reintegration in the community. Thus, it is important to realize the discomfort these movements cause and attempt to discuss and treat them promptly, whenever possible.

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