

a lack of tolerance of ambiguity and the need to resolve the anxiety generated by competing hypotheses as well as a failure to apply knowledge about the likely causes of events. That the latter played a role in this case is suggested by the fact that when it returned her delusions began to disappear. Thus she dismissed as nonsense the previously held belief that doctors had put bugs under her forearm plaster, because it was highly improbable that they would do so.

In stage 5, defects in reasoning underpinned elaboration of her beliefs which, in accord with Bleuler's view (cf. Winters & Neale, 1983), was consequent upon errors in logical thinking in that she believed she was being investigated for drugs dealing because her boyfriend had been to the Far East. Happily, with neuroleptic treatment her delusions resolved and she went home.

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#### **Botulinium toxin in a case of severe tardive dyskinesia mixed with dystonia**

**SIR:** Botulinium toxin appears to be an effective and safe treatment for cervical dystonia (Jankovic & Schwartz, 1990; Blackie & Lees, 1990; Jankovic & Brin, 1991; Poewe *et al.*, 1992). It is used in patients who failed to improve with standard medications. To our knowledge, it has not been used for patients with tardive dyskinesia (Burke & Un Jung Kan, 1988). We report a case of severe mixed syndrome of tardive dyskinesia and dystonia.

**Case report.** The patient is a 41-year-old, divorced, right-handed man. In 1969, with no significant previous history (personal or family) of neurological or psychiatric illness, he presented with an acute schizophrenic episode, characterised by auditory and somatic hallucinations, agitation, thought withdrawal, persecutory delusions, periodic mutism, grimacing, and schizophrenic episode. He received neuroleptic therapy for the next 23 years, with intermittent pauses of less than 2 years. The following antipsychotic medication was well-tolerated and improved the main schizophrenic symptoms: he received in sequence regular dosages of chlorpromazine, trifluoroperazine, haloperidol, thioridazine, methotrimeazine, haloperidol, and flu-

phenazine, and was given central anticholinergics (trihexiphenidyle or procyclidine) for correcting drug-induced extrapyramidal reactions. He received also diazepam and clonazepam.

The patient first noticed abnormal movements in 1973, occurring in intermittent fashion, first localised to the right shoulder but progressing to both shoulders. The abnormal movements were most prominent in the evening, and associated with stress and fatigue. Blepharospasms followed eventually, as well as uncontrollable mixed dyskinesic and dystonic movement of the face and jaw. By 1984, head and neck dyskinesia had appeared, including significant neck extension dystonic movements. Haloperidol tapering in 1986 accentuated the movements, which became continuous and extended to the trunk and upper limbs, thus confirming the diagnosis of tardive dyskinesia mixed with tardive dystonia. These movements tended to decrease or disappear with directed activity requiring significant concentration, and disappear during sleeping. Gait instability ensued, with a few resulting falls.

In 1987 treatment with reserpine (up to 6 mg/day) was tried and discontinued. Then the patient received lecitine, followed by loxapine, and finally the neuroleptic medication was discontinued, except a trial with risperidone with positive but no lasting effects, possibly due to an interaction with valpoic acid which had to be given because of withdrawal seizure related to benzodiazepine discontinuation. A treatment with tetrabenazine during the two last years mildly improved the syndrome.

The patient has no history of exposure to chemical or industrial toxins. Wilson's disease was ruled out on the basis of an ophthalmological examination, as well as ceruloplasmin and copper levels. Isotopic, computerised tomography and nuclear magnetic resonance scans were all normal. Neuropsychological examinations, Wisconsin Card Sorting Index, Hooper, and mirror reading reflected frontal and basal ganglia dysfunction. Neurological examination, in 1992, revealed severe abnormal dyskinesic movements of the face and the trunk with blepharospasms, hyperextension of the neck, and episodic opisthotonos and a choreoathetotic right-arm movement. The psychiatric examination revealed, at this time, no psychotic symptoms and only a dysphoric mood. Extrapyramidal scales (AIMS, Ross-Chouinard) illustrated a severe movement disorder.

Jankovic & Schwartz (1990) have demonstrated the efficiency of botulinium toxin injection in the treatment of primary cervical dystonia on a population of 205 patients. Long-term treatment with these toxins has been studied for up to five years, with relatively minor adverse effects and development of resistance. Botulinium toxin A is a potent pre-synaptic neuromuscular blocking agent, widely used in many spastic disorders. Three botulinium toxin injections were performed, in the hope of preventing a cervical fracture, in our patient with severe dystonic posterior hyperextensions. The objective was to weaken extensor contraction and thus to avoid dangerous and paroxysmal extension. 75 units of toxin A were injected into the following muscles: left splenius capitis, right and left trapezius. The therapeutic results were spectacular. Adverse effects included a flexed position of the neck, and intermittent dysphagia during the first ten days after injection. Injections

are performed every four months, and it is the only treatment which relieves the patient.

In cases of life-threatening or debilitating neuroleptic-induced tardive dystonic dyskinesia, resistant to central pharmacological treatment, botulinium toxin injection can provide significant rapid symptom relief and improvement in quality of life.

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### CORRIGENDUM

*Journal*, October 1992, **161** (suppl. 18), 47. The labelling on the x-axis of Fig. 2 should read PIRS items.

### A HUNDRED YEARS AGO

#### Centenary of "The Retreat" at York

A hundred years have elapsed since the foundation of an Institution for the Insane which has excited admiration in all interested in their welfare, whether at home or abroad. The Medico-Psychological Association held its annual meeting at York this year on July 21st, to mark its appreciation of an event so beneficent in the reform of the treatment of the insane. The medical superintendent of the Retreat, Dr Baker, was appropriately elected President on the occasion. Dr Yellowlees moved a resolution, which was unanimously adopted, expressing the Association's warm appreciation of the work effected by the founder, William Tuke, and his fellow-workers in regard to this remarkable asylum, where chains were unknown at a time when it was supposed they could not be discarded with safety, and where gentleness and consideration were substituted for inhumanity and empiricism. The inestimable benefits conferred by the philanthropic and far-sighted founder well

deserve the recognition it has just received in so striking a manner in the place of its birth. A very remarkable feature of the occasion was the number of congratulations which poured in from the psychological associations of America and Europe. The English, Scotch and Irish boards of lunacy paid a high tribute to the movement in the interests of the insane commenced in 1792. A highly interesting circumstance occurred at the meeting at York. The great-grand-nephew of Pinel, Dr René Semelaigne, was present to speak for his nation and his family. It was a happy international recognition of benevolent action common to both countries and was responded to by Dr Hack Tuke's proposing the health of the French physician, which was duly honoured. Belgium was worthily represented by Dr Morel of Ghent, the President of the Medico-Psychological Association in that country.

#### Reference

*The Lancet*, 30 July 1892, 265.

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