Psychogenic polydipsia (an ill-advised term; the presumption of a psychogenic aetiology is far from established) has appropriately received attention as a poorly understood syndrome, but several agents are well established contributing factors in many cases, and deserve recognition. The use of nicotine, thiazide diuretics and carbamazepine are most commonly implicated, but we should not forget the occasional patient who may be treated with chlorpropamide, tolbutamide, clofibrate, cyclophosphamide or vincristine.

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### References

DARLOW, B. A. (1977). Symptomatic hyponatraemia associated with tolbutamide therapy. *Postgraduate Medical Journal*, **53**, 223–224.

GOSSAIN, V. V., HAGEN, G. A. & SUGAWARA, M. (1976) Drug-induced hyponatraemia in psychogenic polydipsia. *Postgraduate Medical Journal*, **52**, 720–722.

HAGEN, G. A. & FRAWLEY, T. F. (1970) Hyponatremia due to sulfonylurea compounds. *Journal of Clinical Endocrinology and Metabolism*, **31**, 570–575.

KADOWAKI, T., HAGURA, R., KAJINUMA, H., *et al* (1983) Chlorpropamide-induced hyponatremia: incidence and risk factors. *Diabetes Care*, **6**, 468–471.

LICHTENBERG, L. & ABRAIRA, C. (1978) Tolbutamide-associated hyponatremia. *Journal of the American Medical Association*, **240**, 2433–2434.

## Tardive oculogyric crisis and obsessional thoughts

SIR: Before the introduction of neuroleptics, the most common cause of oculogyric crises (OGC) was post-encephalitic Parkinsonism. In these patients, OGC was found to be commonly associated with a variety of transient mood and thought disturbances, including obsessional thinking (Stern, 1927). Although patients suffering from drug-induced OGC are known to secondarily become very anxious (Dorevitch, 1984), an association with obsessional thinking and compulsions has been reported in only one case (Leigh *et al*, 1987). The case described below is significant for two reasons: the patient had a late-onset and recurrent OGC while on neuroleptics, and the episodes of eye deviation were frequently associated with obsessional thoughts.

*Case report*. A 47-year-old woman was first treated for schizophrenic illness 20 years ago with trifluoperazine for six months with gradual and complete recovery of her delusions and auditory hallucinations. Obsessive–compulsive symptoms were not noted as part of her illness, nor were marked obsessional traits a feature of her pre-morbid personality. Following a relapse two years later, she was again treated with trifluoperazine for 2 months, and then maintained on depot fluphenazine decanoate until the present, with doses varying from 12.5 mg every four weeks to 25 mg per week.

About two months after starting fluphenazine decanoate, she developed recurrent episodes of OGC which failed to respond to benztropine (12 mg/day) and improved markedly with procyclidine (20 mg/day), on which she has been maintained ever since, with 2–3 episodes of OGC per week. The episodes occur most frequently in the afternoon but have no reported relationship to fatigue, psychological stress or day of injection.

The description of the OGC provided by the patient was fairly stereotyped. One episode was observed by the author when she agreed to stop her procyclidine for a day. No precipitant was obvious. She became anxious and markedly distressed, and her eyes deviated upward and slightly to the right; the frontalis and nuchal muscles contracted, with retroflexion of the neck. There was no strabismus or skew deviation and she could move her eyes in the upper field of vision. During the episode, she had repetitive and intrusive thoughts about her children: "Are they my children?" and "What would it be like without children?". These thoughts were unwanted, resisted unsuccessfully and were not elaborated into delusions. Twenty minutes after taking 5 mg procyclidine orally, the OGC ceased, and with it her repetitive thoughts. She reported having had obsessional thoughts during many, but not all, episodes of OGC. The main themes had been: counting repeatedly (e.g. numbers from 1 to 10, steps in her office, number of lights in the house, totals of purchases in the shop), romantic thoughts involving her with various men, and her children. No obsessions or compulsions were present unrelated to the OGC. If untreated, the OGC usually lasted for many hours, with the longest duration having been 14 hours. She was unable to abort the attacks. Additional relevant observations were the presence of tardive akathisia and mild tardive dyskinesia.

That this striking association between drug-induced OGC and obsessions has rarely been reported may be because it is seen only in the tardive OGC syndrome which itself is probably rare (Fitzgerald & Jankovic, 1989). This association permits speculation on the morphophysiological basis of the two disorders. For example, while dopamine has been the focus of attention in OGC, and serotonin in obsessions, our case suggests that the situation is likely to be far more complex.

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### References

DOREVITCH, A. (1984) Neuroleptics as causes of oculogyric crises. *Archives of Neurology*, **41**, 15–16.

FITZGERALD, P. M. & JANKOVIC, J. (1989) Tardive oculogyric crises. *Neurology*, **39**, 1434–1437.

LEIGH, R. J., FOLEY, J. M., REMLER, B. F., *et al* (1987) Oculogyric crisis: a syndrome of thought disorder and ocular deviation. *Annals of Neurology*, **22**, 13–17.

STERN, F. (1927) Ueber psychische Zwangsvorgaenge und ihre Entstehung bei encephalitischen Blickkraempfen, mit Bermerkungen ueber die Genese der encephalitischen Blickkraempfe. *Archives of Psychiatry*, **81**, 522–560.

## Drug-induced koro in a non-Chinese man

SIR: Anderson (*Journal*, July 1990, **157**, 142–144) describes a case of koro in an elderly non-Chinese patient with post-stroke depression. Koro is a syndrome characterised by a belief that the penis is shrinking and will eventually disappear into the abdomen and result in death. In its classic form, koro has been described predominantly in Chinese patients in South-East Asia and has been considered to be a culture-bound syndrome of depersonalisation (Yap, 1965). In non-Chinese patients a small number of sporadic cases have been described and reviewed (Berrios & Morley, 1984). It was found that most patients have another primary psychiatric disturbance, with the koro complex grafted onto existing symptoms. The majority of non-Chinese cases in the literature are aged under 65 years. A further case of koro in an elderly Englishman is described.

*Case report*. A 69-year-old married, retired security officer was referred from a surgical ward following his admission with urethral trauma. He had inserted a knitting needle into his urethra in the belief that his penis was shrinking into his abdomen, thus causing obstruction to urine flow.

Born and brought up in Nottinghamshire, he had no known family history of psychiatric illness. During the war he served with the Army in Northern Europe and afterwards spent two years in India. He was married with two children. There was no history of sexual difficulties, or drug or alcohol abuse. He had no previous psychiatric contact.

About six months before presentation, idiopathic Parkinson's disease was diagnosed and L-dopa therapy initiated. Two months before presentation he developed a depressed mood with transient auditory and visual hallucinations. Gradually he developed a firm belief that his penis was shrinking into his abdomen. Several days before admission he reported a poor urinary stream and was convinced that the penile shrinkage was mechanically blocking his urine flow. He decided he must act before his urine flow stopped completely and inserted a knitting needle into his urethra.

On assessment, he was agitated but alert and fully orientated. He was preoccupied with the firm conviction that his penis was shrinking into the abdomen. There was no associated fear of death. He described visual hallucinations and illusions (e.g. swimming eels in the bath), as well as a depressed mood with sleep and appetite disturbance. There was no evidence of cognitive impairment, and results of physical investigations were within normal limits.

Anti-Parkinsonian medication was withdrawn and he was treated with small doses of neuroleptics. His mental state gradually improved and the delusion of genital shrinkage subsided three days later. His Parkinsonian symptoms necessitated a limited reintroduction of L-dopa therapy which resulted in occasional episodes of visual hallucinations during which insight was retained. He had no recurrence of his delusion. His urinary symptoms improved after urological investigations, which revealed no evidence of prostatic hypertrophy.

This case of koro symptom complex in the context of an organic psychosis caused by L-dopa therapy adds to the small number of patients with koro in the context of organic disorder which are described in the literature. Descriptions of koro in elderly patients are rare. As with Anderson's patient, this patient also had a strong affective component in his presentation. Interestingly, in both patients urinary symptoms were prominent in presentation. Anderson's patient presented with acute retention of urine subsequent to his belief that penile shrinkage would lead to outflow obstruction. In both patients, therefore, delusions of penile shrinkage were followed by the idea that the passage of urine would become impossible once the shrinkage was complete. This idea is surprisingly rarely encountered in other cases described in the literature and may reflect a pathoplastic effect of age on the koro symptom complex.

Koro in non-Chinese patients is associated with a range of psychiatric conditions. Anderson points out the need for vigilance in order not to miss or misdiagnose the underlying disorder. In addition to awareness of any concurrent psychiatric symptoms, exploration into the nature of the fear associated with genital retraction may provide an important insight into the psychopathology of the patient.

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### References

BERRIOS, G. E. & MORLEY, S. J. (1984) Koro-like symptoms in a non-Chinese subject. *British Journal of Psychiatry*, **145**, 331–334.

YAP, P. M. (1965) Koro – a culture-bound depersonalisation syndrome. *British Journal of Psychiatry*, **111**, 43–50.