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References

CRAFT, M. D., STEPHENSON, G. & GRANGER, C. (1964) A controlled trial of authoritarian and self-governing regimes with adolescent psychopaths. *American Journal of Orthopsychiatry*, **34**, 543–554.

DEPARTMENT OF HEALTH AND SOCIAL SECURITY (1983) *Memorandum on Mental Health Act 1983*. London: HMSO.

FINGL, E. & WOODBURY, D. M. (1975) Behavioural toxicity. In *Introduction to the Pharmacological Basis of Therapeutics* (ed. A. Goodman-Gillman). New York: Macmillan.

GUNDERSON, J. G. & ZANARINI, M. C. (1987) Borderline personality disorder. *Journal of Clinical Psychiatry*, **48**, 13–19.

GUNN, J. & ROBERTSON, G. (1976) Psychopathic personality: a conceptual problem. *Psychological Medicine*, **6**, 631–634.

SCANNELL, T. D. (1989) Community care and the difficult and offender patient. *British Journal of Psychiatry*, **154**, 615–619.

SNOWDEN, P. R. (1985) A survey of the regional secure unit programme. *British Journal of Psychiatry*, **147**, 499–507.

STEINER, M., ELIZUR, A. & DAVIDSON, S. (1979) Behavioural toxicity. Neuroleptic-induced paradoxical behavioural toxicity in young borderline schizophrenics. *Confina Psychiatrica*, **22**, 226–233.

THOMSON, I. G. (1986) Milieu therapy. *Bulletin of the Royal College of Psychiatrists*, **10**, 35–36.

VAN PUTTEN, T. & MARDER, S. (1987) Behavioural toxicity of antipsychotic drugs. *Journal of Clinical Psychiatry*, **48**, 13–19.

WHITELEY, J. S. (1970) The response of psychopaths to a therapeutic community. *British Journal of Psychiatry*, **116**, 517–529.

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Koro-Like Symptoms in a Man Infected with the Human Immunodeficiency Virus

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A 32-year-old man presented with koro-like symptoms in association with a depressive illness and HIV infection.
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The psychiatric syndrome koro is characterised by a conviction that the penis is shrinking; this is usually accompanied by intense anxiety and fear of impending death. In its classic form the phenomenon is culture specific to South-Asian Chinese people, to whom it is known as *suk-yeong* (Yap, 1965*a*). In non-Chinese subjects, koro usually occurs in the context of another psychiatric disorder, and the symptom typically resolves once the underlying illness has been treated (Berrios & Morley, 1984).

This report describes koro-like symptoms in a 32-year-old man, in association with a depressive illness and infection with the human immunodeficiency virus (HIV).

Case report

A 32-year-old man was being seen regularly in a clinic for sexually transmitted diseases (STD), following seroconversion with HIV four years previously. He remained physically asymptomatic and there was no evidence of lymphadenopathy, infections, or neurological complications. His white-cell count, including T-helper cell count, was normal, as was a cranial computerised tomography scan. In the past he had twice contracted syphilis and had several gonorrhoea infections, and he was seropositive for hepatitis B.

For the five years preceding his psychiatric admission he had experienced self-limiting episodes of low mood, and had been receiving supportive counselling from a psychologist attached to the STD clinic. He had no other psychiatric history before this admission, which was initiated by his counsellor when he became severely depressed. At the time of admission the patient gave a two-month history of disturbed sleep with early morning wakening, decreased appetite, diurnal mood variation, absence from work, and suicidal ideas.

Before admission he had a good employment record. He lived alone, but had many friends and enjoyed a full social life. Family relationships had been strained since he disclosed his homosexuality as a teenager. His father had died ten years earlier, before reconciliation could occur. Since the age of 16 he had multiple male sexual partners, but had never formed a lasting relationship. Following the disclosure of his HIV status he abstained from sexual activity for one year, partly as a response to feelings of anxiety and guilt, as well as fears that he might transmit the virus to others. He gradually resumed sexual activity, but at a reduced intensity, until the year before admission, when he became inactive again owing to diminished libido.

His pre-morbid personality was thought to show features of sensitivity to criticism and rejection, need for approval, extreme concern with his physical appearance and health, combined with a wariness of forming confiding relationships.

However, he established a network of friends and acquaintances, several of whom had died from the acquired immunodeficiency syndrome (AIDS) during the previous five years.

On admission the patient found it difficult to talk, and rarely made eye contact. He was anxious and depressed, weeping and shaking, and described feelings of worthlessness and guilt in addition to the biological features of depression referred to above. He expressed feelings of anger and loss about the death of his friends as well as fears about the future course of his own illness. He described his sense of loss as a feeling that he was actually shrinking. His score on the Beck Depression Inventory (BDI; Beck *et al*, 1961) on admission was 34 (severely depressed).

After one week in hospital, he confided some concerns about his physical condition. He was worried about his skin (virtually without blemish), which he felt was about to erupt into acne because of its excessive oiliness. He demanded an expert opinion but the dermatologist discovered no abnormalities, and reassured him about his condition. However, the patient was deeply dissatisfied with the consultation and requested further investigations. He also held a transient belief that his brain was dehydrating, but was eventually convinced that this was an impossible idea related to his depression.

The patient's third abnormal belief was that his penis had gradually been shrinking over the previous three months. He felt that it might disappear completely. He did not believe that he would die if his penis disappeared, but he was clearly anxious and distressed about his condition. He had not made any attempts to hold onto his penis, but did admit to looking several times daily to ensure that it had not disappeared. He had no explanation for why this might be happening; in particular he did not accept that this might be related to his depression or anxiety, nor did he relate the symptom to any physical concerns about infection or contamination. Physical examination was normal. He remained unshakeable in this belief until shortly before his discharge.

During his two-month admission he was treated with dothiepin (150 mg a day) and had twice-weekly counselling sessions with a trained cognitive therapist. His sleeping pattern improved rapidly, followed by some improvement in diurnal mood variation. Feelings of hopelessness and anger continued, but with diminished intensity, and suicidal thoughts receded. On discharge his BDI score was 14. Medication was continued and the patient maintained his improvement as an out-patient; at eight months there was no evidence of a relapse of any abnormal beliefs.

Discussion

This patient did not exhibit the complete classic psychopathology of koro, lacking the fear of imminent death (Yap, 1965*a*). Traditional South-East Asian folk beliefs about the consequences of sexual excess or misdeameanours are the source from which the classic symptoms emerge (Yap, 1965*a*). These features are incomplete in most of the 30 Western cases reported in the psychiatric literature. All of these patients were convinced that their genitals were shrinking, but few believed that this would lead to inevitable death (Berrios & Morley, 1984). The use of the term 'koro' in these cases is inappropriate, and they should instead be referred to as 'koro-like states' (Berrios & Morley, 1984). We do not think the term 'genital retraction syndrome' suggested by Edwards (1984) and Anderson (1990) is suitable, as it suggests organic rather than psychological disturbance. 'Koro' should be reserved to describe cases where the complete syndrome presents in an environment where it has an established cultural significance.

A high rate of accompanying psychiatric morbidity also distinguishes those with koro-like states from cases of true koro. The most commonly reported illnesses include anxiety states, schizophrenia, and depression. Kraepelin (1921) characterised such beliefs as typical hypochondriacal delusions of severe depression. Our patient's beliefs surfaced in the context of a well defined affective disorder. The belief in penile shrinkage emerged in conjunction with two other abnormal beliefs concerning bodily change. These beliefs had a strong hypochondriacal component, were mood-congruent, reached delusional intensity at times, and resolved when his mood lifted following effective treatment.

What distinguishes this patient from other cases in the literature is his HIV seropositivity. Groups at high risk of HIV infection are also at increased risk of current and lifetime affective disorder (Perry *et al*, 1990). In a study of 192 patients with HIV infection, 30% had psychiatric disorders, most commonly affective disorders (King, 1990). Somatic preoccupations were common among King's sample, and such beliefs were associated with psychiatric illness. Little information has emerged from population studies on the type of somatic concerns which patients report, and it is not clear if these symptoms are clearly related to the individual's fear about progressing to the more serious phase of HIV infection.

Our patient had always been health conscious. The prominence of hypochondriacal beliefs in his illness suggests that this characteristic was a major pathoplastic influence. His history of venereal and HIV infection may have increased the likelihood that hypochondriacal beliefs would focus on his penis. These concerns may also have been exaggerated by observing the normal physiological changes in penile size which occur in depression and anxiety. Oyebode *et al* (1986) used plethysmography to show that increasing anxiety levels in a patient with koro-like symptoms precipitated significant changes in penile circumference.

The patient with true koro also exhibits manifest hypochondriacal features (Yap, 1965*a*,*b*). We propose that somatic awareness and health consciousness may be the common clinical feature in patients who suffer koro and koro-like states. In true koro these concerns are exaggerated and moulded by culture-bound ideas, whereas in koro-like syndromes the final presentation is generated by psychotic or anxiety-related beliefs.

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References

ANDERSON, D. N. (1990) Koro: the genital retraction symptom after stroke. *British Journal of Psychiatry*, **157**, 142–144.

BECK, A. T., WARD, C., MENDELSON, M., *et al* (1961) An inventory for measuring depression. *Archives of General Psychiatry*, **4**, 461–471.

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

EDWARDS, J. W. (1984) Indigenous koro: a genital retraction syndrome of insular South East Asia: a critical review. *Culture, Medicine and Psychiatry*, **8**, 1–24.

KING, M. B. (1989) Psychosocial status of 192 out-patients with infection and AIDS. *British Journal of Psychiatry*, **154**, 237–242.

KRAEPELIN, E. (1921) *Manic–Depressive Psychosis and Paranoia*. Edinburgh: Livingstone.

OYEBODE, F., JAMIESON, R., MULLANEY, J., *et al* (1986) Koro – a psychophysiological dysfunction? *British Journal of Psychiatry*, **148**, 212–214.

PERRY, S., JACOBSBERG, L. B., FISHMAN, B., *et al* (1990) Psychiatric diagnosis before serological testing for the human immunodeficiency virus. *American Journal of Psychiatry*, **147**, 89–93.

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

—— (1965*b*) Koro in a Briton. *British Journal of Psychiatry*, **111**, 774–775.

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Sodium Valproate as an Antidepressant

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A patient with chronic depression responded to treatment for her major depressive episodes, but was left with a dysthymia which was eventually relieved by anticonvulsants. Sodium valproate may be of use in a range of affective disorders.
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Resistant depression is "symptomatic non-recovery for a period of two years or more and may be a sequel to one or more episodes of major depression from which the patient does not recover" (Cassano, 1983). The prevalence of such a disorder is estimated as being 12–15% of psychiatric patients (Scott, 1988). Patients are often severely handicapped by their illness, and it is frequently necessary to try various regimes of treatment to find the one to which any particular patient will respond.

The use of sodium valproate in the treatment of bipolar affective and schizoaffective disorders has been documented (Post & Uhde, 1983; Calabrese & Delucchi, 1990). It ranks alongside the more commonly used carbamazepine as a useful alternative or adjunct to mood-stabilising therapy with lithium carbonate (Klosiewicz, 1985). The psychotropic properties of anticonvulsants was first noted by Kubanek & Rowell (1946), who used phenylhydantoin in patients with mania or schizophrenia and observed a higher rate of recovery among the manic patients. Sodium valproate has also been used in the control of episodes of mania (Emrich *et al*, 1985). Its usefulness has been reported in patients who have suffered ongoing affective disorders following closed head injuries, even in the presence of a normal electroencephalogram (Pope *et al*, 1988).

A literature search has failed to show any published data on the effect of sodium valproate in resistant unipolar depression. A patient is reported for whom anticonvulsant medication provided the answer to resistant depression.

Case report

A 38-year-old woman had first been referred for psychiatric assessment at the age of 22. She had been adopted in infancy,