"INCOMPLETE KORO" - A FORERUNNER FOR MOOD DISORDER: TWO CASE REPORTS
SAJI S.DAMODARAN, S.HAQUE NIZAMIE

SUMMARY
Koro was initially reported as a culture-bound psychiatric syndrome confined to South-east Asian cultures. Later on, isolated cases of Koro have been reported from non-Chinese cultures also. Incomplete Koro syndrome or a 'Koro-like state' is usually grafted on to a primary psychiatric disorder. The association of Koro with depression is rare and this paper reports two cases of mood disorder presenting with Koro symptoms. Recurrence of Koro symptoms in the depressive phase and its disappearance during the period of mania has not been reported. The initial anxiety associated with Koro might result into major depression. It is proposed that a Koro-like state may be a non-specific epiphenomenon that vanishes with recovery of depression.

Koro was initially reported as a culture-specific psychiatric disorder mainly among the people of Malay archipelago and South China. Later on, sporadic cases as well as epidemics from other countries such as India (Nandi et al, 1983; Dutta et al, 1982), Singapore (Ngui, 1969) and Thailand (Swanlert & Coates, 1979) were also reported. It has also been reported from North American and European Caucasians. It has been suggested that Koro may not be a truly culture bound syndrome (Anderson, 1990) since isolated cases of Koro comprise mostly of individuals who had never been exposed to Chinese culture (Berrios & Morley, 1984; Cremona, 1981; Ede, 1976; Edwards, 1970; Chakraborty, 1982; Shukla & Mishra, 1981). However, the typical Koro complex which has three essential characteristics i.e., acute anxiety, fear of genital retraction and fear that the complete disappearance of the organ into the abdomen will result in death (Bernstein & Gaw, 1990) is rarely seen in non-South-east Asian cultures. It is the presence of the belief that penile shrinkage will cause death that has been reported to distinguish typical, cultural variant of Koro from its sporadic, non-cultural version. The most classic and typical form of Koro is seen among Indonesian and Chinese races while other races present an incomplete syndrome or a 'Koro-like state' grafted onto a recognizable psychiatric disorder (Berrios & Morley, 1984). In a review of 15 non-Chinese, sporadic cases of Koro, almost all the subjects had an underlying primary psychiatric disorder such as agoraphobia, panic attacks, anxiety states, schizophrenia, depression and substance abuse. The Koro-like symptoms disappeared when the underlying disorder was treated (Berrios & Morley, 1984). However, this may not be true about Koro epidemics where no other psychiatric diagnosis is usually seen.

Association of Koro with depressive states has been known in the past (Kraepelin, 1921). However, Koro manifesting as major depression is rare (Turnier & Chouinard, 1990). Koro occurring repeatedly during the phase of depression and it's disappearance during the period of mania has not been reported to the best of our knowledge. Two such cases are reported.

Case 1:
AKS was a 20 years old college student who was given to excessive fantasy about sex and frequent masturbation. He used to wonder if he was adequately endowed and if he would be able to perform normally. On seeing any young woman, the first thought coming into his head was that of sexual intimacy. He had sexual intercourse on a few occasions, more in order to test himself, and he enquired of his partners whether he had performed well. He was the eldest of 4 siblings and hailed from a lower middle class, conservative, rural background. Family history was unremarkable.

In November 1989, while riding a motor bike he suddenly realized that his penis was not rubbing against the petrol tank of the bike. He knew that his penis had become smaller. He became intensely worried, had palpitations, dry mouth, sweating and dizziness. He examined his organ and felt that it was getting retracted into his abdomen. On the pretext of scratching his groin he caught hold of his penis through his trouser pocket and tugged on it. Over the next few days he became sad, lost interest, slept fitfully and conflict in the area of sex. Routine laboratory investigations were within normal range.

On examination, he was a young man of average build, markedly depressed and anxious, and much worried about his penis becoming smaller. He revealed depressive cognitions such as ideas of worthlessness, hopelessness, helplessness and persistent, suicidal ideas. He also had ideas of reference. He did not believe that his penile shrinkage would result in his death. Psychometry revealed moderate depression, a high level of anxiety, preoccupation with sex and conflict in the area of sex. Routine laboratory investigations were within normal range.

He was treated Imipramine 150mg/day, supportive psychotherapy and counselling. He recovered fully within two months and was discharged. Two months later, he presented with a manic illness of 10 days duration. He claimed to possess a very big penis and that he could have sex incessantly. He was treated successfully with oral Haloperidol 15mg/day and a course of six ECTs. Subsequently, over a period of six months he had two more episodes, one each of depression and mania. During the phase of depression the Koro-like symptoms were in the forefront and they vanished altogether when mania set in.
In view of four episodes over a period of less than a year he was started on Sodium Valproate as a maintenance drug. He is remaining well, and he comes for regular follow up.

Case 2:

SK, a 18 year old college student became very fearful one night in October, 1991 and complained of his penis becoming smaller and getting pulled into his stomach. He also complained of aches and pains all over the body, tightness in the chest and dry mouth. He was found to be sweating profusely and his hands trembled. He had many bouts of these symptoms each lasting for few minutes. Over next two days he became sad, lethargic, complained of weakness, expressed suicidal thoughts and he was very contrite about his previous acts of masturbation. He attributed his plight to his excessive indulgence in masturbation. He often found pulling on his penis and he sought repeated reassurance that his penis would not retract into his abdomen. There was family history of chronic schizophrenia in his mother and he was brought up by his aunt. Neither the patient nor his family had ever heard of an similar illness.

On examination, he was a thin, tense, dishevelled youngster. He was sweating, had tachycardia and he expressed guilt feelings and suicidal ideas. He was sad and preoccupied with the thought of his penis becoming smaller and getting retracted in his abdomen. He was treated with oral Haloperidol 5mg/day and Amitriptyline 100 mg/day. He soon developed incapacitating pseudo-parkinsonism and intense suicidal ideas. Haloperidol was reduced to 2mg/day and benzhexol was added at a dose of 100 mg/day. He soon developed incapacitating pseudo-parkinsonism and intense suicidal ideas. Haloperidol was reduced to 2mg/day and benzhexol was added at a dose of 100 mg/day. He was put on a course of ECT, but with the second ECT he developed prolonged and marked confusion and hence ECT was stopped. Within three days of stopping ECT he developed florid manic symptoms. He proclaimed about his sexual prowess and claimed to have a big penis. In view of the poor response to and marked side effects of Haloperidol and ECT, he was started on Sodium Valproate 400mg/day. Within a fortnight he recovered completely and was counselled on sexual matters. He was then discharged and has been lost to follow up.

DISCUSSION

Yap (1965) proposed Koro as a unique depersonalization syndrome occurring in immature, dependent personalities who lack confidence in their own virility and are in conflict over the expression of genital impulses. This immaturity coupled with the higher level of trait anxiety in vulnerable subjects (Chowdhary, 1990) on the background of dysmorphic penis image perception (Chowdhary, 1991) results in the belief that the penis is shrinking. It has been suggested that the patients who consider themselves guilty of overindulgence in sex, masturbation and nocturnal emission are often preoccupied with the idea that their penis has shrunk in size (Nandi et al, 1983). Both cases were very concerned about their past sexual excesses and about their future performance. Culturally elaborated fear of loss of a valued organ may be a precipitating factor in a predisposed individual. In our cases, initial acute anxiety associated with the fear of penile shrinkage was overwhelming and this preoccupation might have graduated into subsequent depression. Simons (1985) suggested that the sensation of penile shrinkage generates anxiety which in turn causes reduction in blood flow to extremities resulting in further shrinkage of penis and further anxiety. He described this sequence as "a self-incriminating causal loop". The initial anxiety might result in a depressive syndrome and the Koro-like state may be a non-specific epiphenomenon that vanishes with recovery from depression.

The striking features in both cases were the presence of Koro-like symptoms at the outset of a primary psychiatric illness i.e., depression, its recurrence in tandem with depression and disappearance when mania sets in. An emphasis on their unusual virility was predominant during mania in both the cases. This suggests that Koro-like symptoms may be heralding features of depression particularly in individuals who consider themselves to be excessively given to sex. Since sex is thought to be debilitating, rendering one weak in body and mind and masturbation apart from general debility is supposed to make penis thin and weak, it is possible that a psychiatric disorder gets its initial expression in a form that is understandable to the patient in terms of his value system. Expression of ideas that one possesses a huge phallus and of sexual prowess during manic illness may also have cultural determinants since these are thought to be desirable attributes.

The follow up of sporadic Koro cases has rarely been reported. Ang and Weller (1984) reported a case of Koro associated with depression that later showed bipolarity similar to Case 1. However, their case did not have Koro symptoms in subsequent attacks of depression. Finally, the mania following ECT that occurred in Case 2 may have been either a spontaneous switch or ECT induced (Andrade et al, 1988). In conclusion, it may be suggested that isolated cases of Koro should be carefully followed up for underlying psychopathology.

REFERENCES

Anderson, D.N. (1990) Koro: the genital retraction symptom after Stroke. British Journal of Psychiatry, 157, 142-144.

Andrade, C., Gangadhar, B.N. & Swaminath, G. (1983) Mania as side effect of electroconvulsive therapy. Convulsive therapy, 4, 81-83.

Ang, P.C. & Weller, M.P.I. (1984) Koro and psychosis. British Journal of Psychiatry, 145, 335.

Barret, K. (1978) Koro in a Londoner (Letter). Lancet, 2, 1319.

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

Bernstein, R.L. & Gaw, A.C. (1990) Koro: proposed classification for DSM IV. American Journal of Psychiatry, 147, 1670-1674.
Chakraborty, P.K. (1982) Koro: a peculiar anxiety neurosis. *Indian Journal of Psychiatry*, 24, 192-193.

Chowdhary, A.N. (1990) Trait anxiety profile of Koro patients. *Indian Journal of Psychiatry*, 32, 330-333.

Chowdhary, A.N. (1991) Dysmorphic penile perception in Koro. *Indian Journal of Psychiatry*, 33, 48-51.

Dutta, D., Phookan, H.R & Das, P.D. (1982) The Koro epidemic in Lower Assam. *Indian Journal of Psychiatry*, 24, 370-374.

Ede, A. (1976) Koro in an Anglosaxon Canadian. *Canadian Psychiatric Association Journal*, 21, 389-91.

Edwards (1970) The Koro pattern of depersonalization in an American patient. *American Journal of Psychiatry*, 126, 1171-1173.

Kraepelin, E. (1921) *Manic Depression Insanity and Paranoia*. [trans. R.M.Barclay; eds. G.M.Robertson, L.Edinburgh & S.Livingstone].

Nandi, D.N., Banerji, G. & Saha, H. (1983) Epidemic Koro in West Bengal, India. *International Journal of Social Psychiatry*, 29, 265-268.

Ngul, P.W. (1969) The Koro epidemic in Singapore. *Australia and New Zealand Journal of Psychiatry*, 3, 263-266.

Simons, R.C. (1985) Introduction: The Genital Retraction Taxon. In *The Culture-Bound syndromes: Folk Illness of Psychiatric and Anthropological Interest* [eds. R.C.Simons & C.C.Hughes] Dordrecht: D.Reidel.

Shukla, G.D. & Mishra, D.N. (1981) Koro like syndrome: a case report. *Indian Journal of Psychiatry*, 23, 96-97.

Swanlert, S. & Coates, D. (1979) Epidemic Koro in Thailand Clinical and Social aspects. *Transcultural Psychiatric Research Review*, 16, 64-66.

Turnier, L. & Chouinard, G. (1990) Effect anti-Koro d'un antidepresseur tricyclique. *Canadian Journal of Psychiatry*, 35, 331-334.

Yap, P.M. (1965) Koro: a culture-bound depersonalization syndrome. *British Journal of Psychiatry*, 11, 43-50.

---

*Saji S.Damodaran, Resident In Psychiatry; S.Haque Nizamie*, Associate Professor Of Psychiatry, Central Institute Of Psychiatry, Kanke, Ranchi-6, Bihar.

*Correspondence*