

**SECTION EIGHT**

**MEDICAL & SOCIAL TREATMENT OF KORO**

## MEDICAL AND SOCIAL TREATMENT OF KORO

### SUMMARY

An account of the medical treatment that was offered to the Koro patients by local general practitioners, hospital doctors, private specialists and by the author himself is briefly documented. It was observed that "an act of emergency" intervention with some injection (of therapeutic drugs) treatment resulted in a miraculous response, though the medicine injected in many instances did not have any therapeutic value for the cure of Koro symptoms. Similar placebo effects was manifested in the Koro patients' craving for vitamin 'tonics'. Proper counselling of the cases and their accompanying family/community members with judicious use of anxiolytic and sedative medications, coupled with insight psychotherapy yielded excellent clinical recovery.

The 'Social' treatments, i.e. the ritualistic healing method as advocated by priest-healers, village medicine man (*jikri*) was the most popular treatment method, adopted by most of the Koro patients. Pouring of cold water, manual or mechanical penis pulling or forced ingestion of lemon/salt-water was the widely practised curative healing method. Medical and surgical fatalities of such social treatments included hypothermic shock, bronchopneumonia and even death and penile injuries and infections. Preventive social treatment, however, was without any health hazard and was limited to marking of face, ear lobules and chest with white lime spots and swaddle strips of the dark skin of arum (*Typhonium trilobatum*) around the great toe of both legs. Few patients also tied charmed amulets or cowrie around the waist.

## MEDICAL TREATMENT OF KORO

### SUMMARY

A brief account of medical (allopathic) treatment offered to Koro patients during the North Bengal Koro Epidemic is presented, the information being collected from the concerned medical practitioners (at hospitals or at private clinics), general practitioners along with the present author's own treatment experiences. An extraordinary placebo effect of 'injection treatment' as an emergency medical intervention was noted both to the patient and at the community level. Craving for vitamin "tonics" by the Koro patients is noteworthy. Judicial administration of anxiolytic medications along with sedatives and in some anti-depressants with supportive psychotherapy (both to the patient and to the family members) brought about a demonstrably remarkable clinical response. Koro patients with co-existing psychiatric morbidities needed short-term treatment followup inspite their Koro remission. An account of these medical treatments along with their psychotherapeutic values is discussed.

---

### **Injection Treatment**

Koro patients were usually brought to the hospital/private clinics by a group of over-anxious relatives, friends and community people and the urgent demand for an emergency medical intervention, the Koro patient was unfailingly insisted upon by the people accompanying as a life-saving measure. This "compelling magency" invoked by the awaiting over-anxious and potentially 'hazardus' mob coupled with the ignorance of the attending physician prompted the latter to institute

a 'medicine injection treatment' instantaneously. The medicines administered mostly intramuscularly, in some cases intravenously (diazepam 5 mg) as well, ranged from diazepam, promethazine, largachil, phenobarbitone, anabolic steroid, vitamin B<sub>1</sub>, B<sub>6</sub>, B<sub>12</sub>, Nikethamide, tetanus toxoid to intravenous infusion of a bottle of 5% dextrose solution. The immediate effects of these 'emergency injections' were dramatic and in some cases of dextrose infusion, the patient felt 'absolutely ok' only after the transfusion of a quarter bottle of fluid and urged for discontinuation of the same. Intramuscular diazepam, phenobarbitone or largachil, though not so dramatic, yielded good clinical response. Some general practitioners reported that combination of two or three injections one after another in different shots (e.g. diazepam 5 mg, promethazine 50 mg and 2 ml of B<sub>1</sub>, B<sub>6</sub> and B<sub>12</sub>) yielded good results. The patients usually became free of genital retraction perception within a period of 15 to 20 minutes. One general practitioner reported that he cured all of the sex male Koro patients he had treated immediately after an intramuscular injection of 5 ml of distilled water deeply in the gluteal region.

Craving for 'vitamin tonic' was remarkable. It was due to both, - general cognition of masses about the strength-giving property of the vitaminous liquid and also because of indiscriminate prescribing of the same by the medical practitioners. It is worthwhile to recall here one such example of an ayurvedic rejuvenating tonic which claims to offer "secret strength and regaining of lost power" at a horse speed in its package cover with a picture of a galloping horse. This tonic was on high demand during the epidemic months and one of the medicine shops sold 200 bottle on average daily during the early part of the epidemic. Other tonics that were on high sale were B-complex, liver extracts, glycerophosphate and cyproheptadine syrups.

It is seen that Koro patients, either in hospital or at private clinics were regarded as an unwelcome burden. This

was primarily due to first, ignorance of the physicians who had the Koro patients under their charge and secondly, the invariable accompanishment of a chaotic mini-mass with each patient. Compulsion of emergency was present at both ends of the spertrum : the physician wants to get rid of this vexing problem at his earliest and the patient party demands immediate medical intervention and recovery. Injection treatment, howsoever meaningless from medical point of view the same may be, has a demonstrably spectacular synergistic effect on the whole scenario. Immediate injection and/or dextrose infusion in that sequence reflects not only the demonstration of 'emergency' intervention (something has been done to the patient) but it also helps the patient to reorganize his psychic defence to get free of his Koro symptoms. So these medical interventions somehow has a positive psychotherapeutic effect on both types of Koro psychodynamics; viz. hysterical somatization or panic-stricken Koro reaction. This holds true for the female Koro patients as well.

#### **Psychiatric Treatment of Koro**

Treatment experience of the author of 64 Koro cases (55 male and 9 female) of North Bengal Koro epidemic has shown that the following treatment regimen offered a remarkable clinical response. Of these cases 21 were (19 male and 2 female) treated at the North Bengal Medical College (5 males were inpatient at the Department of Medicine) and the rest 43 at community level.

#### **Treatment Steps :**

1. All the accompanying persons were asked to remain outside the clinical room.
2. Strong assurance that this illness is not life-threatening simultaneously with a prompt physical examination including inspection and palpation of the genital organ and

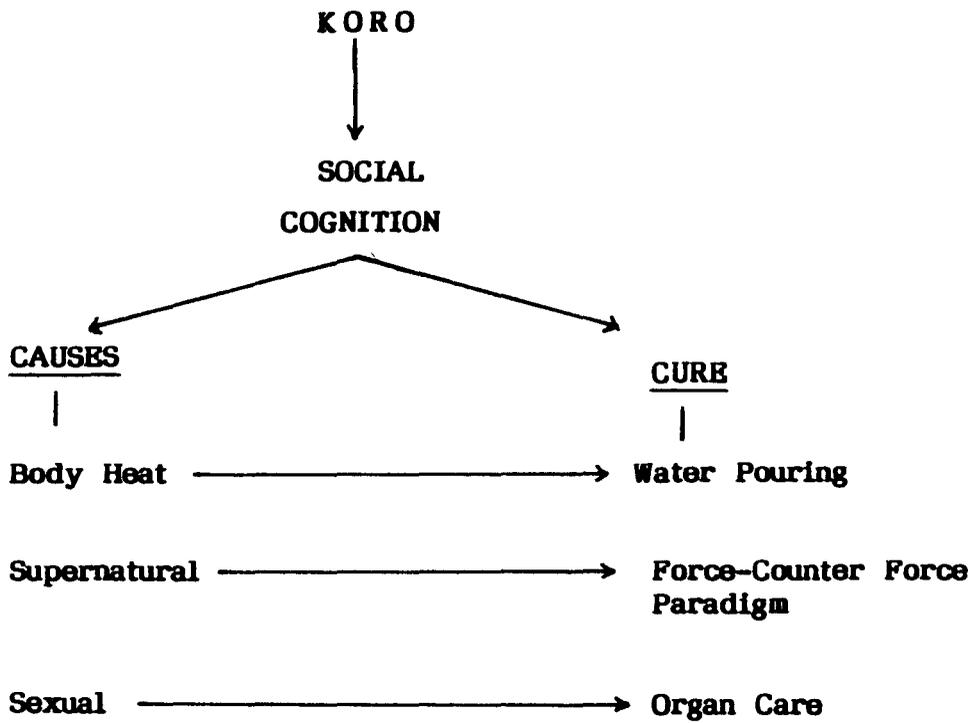
recording of pulse, blood pressure at the initial contact was found conducive to the establishment of a good rapport with the patient.

3. In cases of surcharged with anxiety patients, intramuscular or intravenous 10 mg of diazepam injection sometimes with intramuscular promethazine 50 mg offered good recovery from the Koro pang.
4. Oral day-time oxazepam tablet, 15-30 mg BID or TID and diazepam 5 or 10 mg at bed-time for 2-3 days made the patient absolutely normal in almost all the cases.
5. The patients with pre-existing psychiatric illness, e.g. depression or schizophrenia, responded nicely to treatment with doxepin hydrochloride (25-50 mg BID) and haloperidol (5 mg BID/QID) respectively for 7-14 days.
6. Insight psychotherapy along with elaborate discussion on genital morphology and functions helped to alleviate Koro patients' fear of loss of sexual virility or future attack.
7. Two female cases, one with agitated depression and the other with varied hypochondrial concern responded well within 3-4 days to treatment with doxepin hydrochloride (50 mg BID) and oxazepam (30 mg BID) so far as their Koro perception was concerned. However, they had to continue treatment for their primary illness for a period of 6-8 weeks.
8. In some cases (16 male) followup (upto 3-4 months) psychotherapy was needed for boosting up their masculine morale.

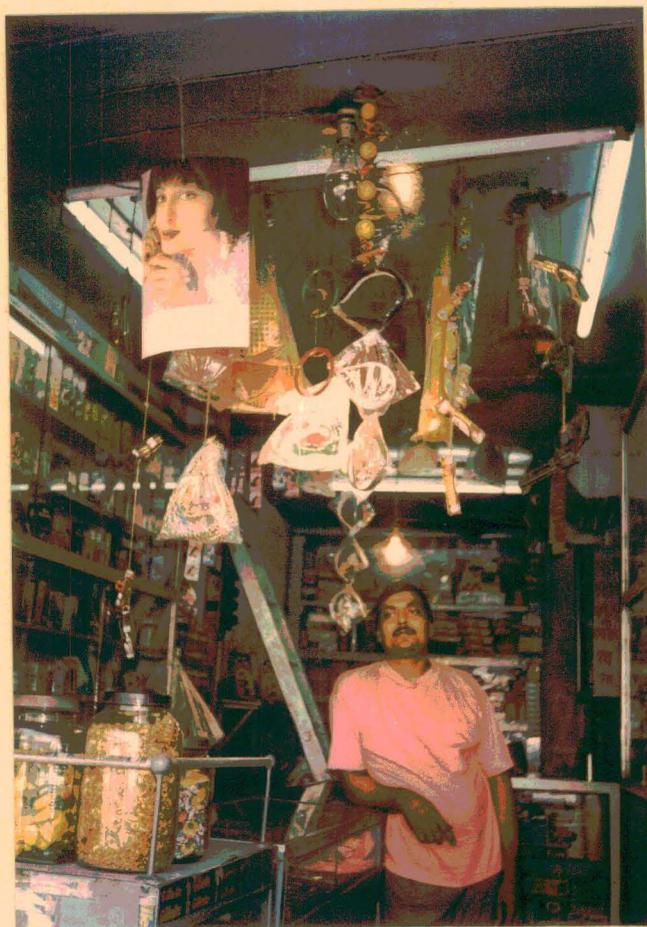
## SOCIAL TREATMENT OF KORO

The cultural-cognitive evaluations and explanations of the etiology of Koro by the koro-affected and non-affected population for obvious reasons direct the mode of socio-ritualistic healing practices, i.e. 'natural treatment'. The various ritualistic healing modalities advocated by the community with social sanction was in reality a reflection of the societal cultural attribution related to koro cognition. The local faith-healers, called 'Jhikri' in this region, also endorsed similar healing methods for the cure of genital retraction in koro. This cultural koro cognition can be viewed from three broad categories insofar as its etiology is concerned, viz. body heat concept., supernatural causation and organ pathology. The respective curative treatment methods advocated were : Water pouring to cool the body from heat; force-counterforce paradigm leading to penile traction and care of the sex organ (penis) (Fig.1).

Another cultural cognition related to body heat dissolution was the forced feeding of common salt (NaCl) solution with lemon juice. The idea behind is probably that salt facilitates vomiting and thereby relieves the patient from 'distension' caused by 'excessive body heat'. Both common salt and lemon juice are believed to have medical value and are frequently used in different home remedial measures, e.g. gargle with salt-water in throat infection; bandage with salt and ice in sprains or blunt injury of the limbs etc. Lemon water is attributed to have great digestive properties and is taken to be a cooling (of body heat) agent. Ripe lemon (a golden yellow in colour) is used in a number of religions and domestic rituals. Lemon is also believed to have a protective property from unholy magical influence or malevolent intent on a household of envious neighbours. So a thread containing 3 or 4 yellow lemons interspersed with red chillis is usually kept hanging at the entrance door of a house or in front of a shop (Fig.2) or even in front of a taxi car.



**Fig.1.** Cultural cognition and its interaction between cause and cure of Koro.

**Fig.2****Fig.3**

## SOCIO-RITUALISTIC HEALING OF KORO :

### A. Curative Methods :

The main healing ritual was to cool the body either by pouring several buckets of water over the koro affected person or by immersing him upto the neck in pond or river, irrespective of his will or the time of the day. Pouring water over koro affected persons became a social event of great enthusiasm during this time and many known or unknown neighbours or passersby volunteered to carry and pour in a certain jovial mood and the whole sequence took a ceremonial character (Fig. 3).

A brief account of social curative 'treatment' of 104 male and one female Koro cases is reported. Medical and surgical fatalities involving 4 deaths from such social 'treatment' is also reported.

Table 1 shows the account of 4 deaths arising out of such 'treatment' of koro. Three were the victims of water-pouring and its consequent profound hypothermic shock.

Table 1. Deaths from koro social 'treatment'.

Case	1	2*	3**	4
Age (Yrs.)	17	38	32	27
Marital status	Single	Married	Married	Single
Ethnicity	Behari Hindu	Oraon (Tribe)	Bengali Hindu	Bengali Hindu
Clinnical presentation	Profound Hypothermic Shock			Brought dead
Forced immersion	9 hours (in river)	12 hours (in pond)	10 hours (in pond)	Forced feeding of 5 Kg. Salt (NaCl) Soln.

\* A tea plantation worker, treated by Jhikri.

\*\* Also inhaled water.

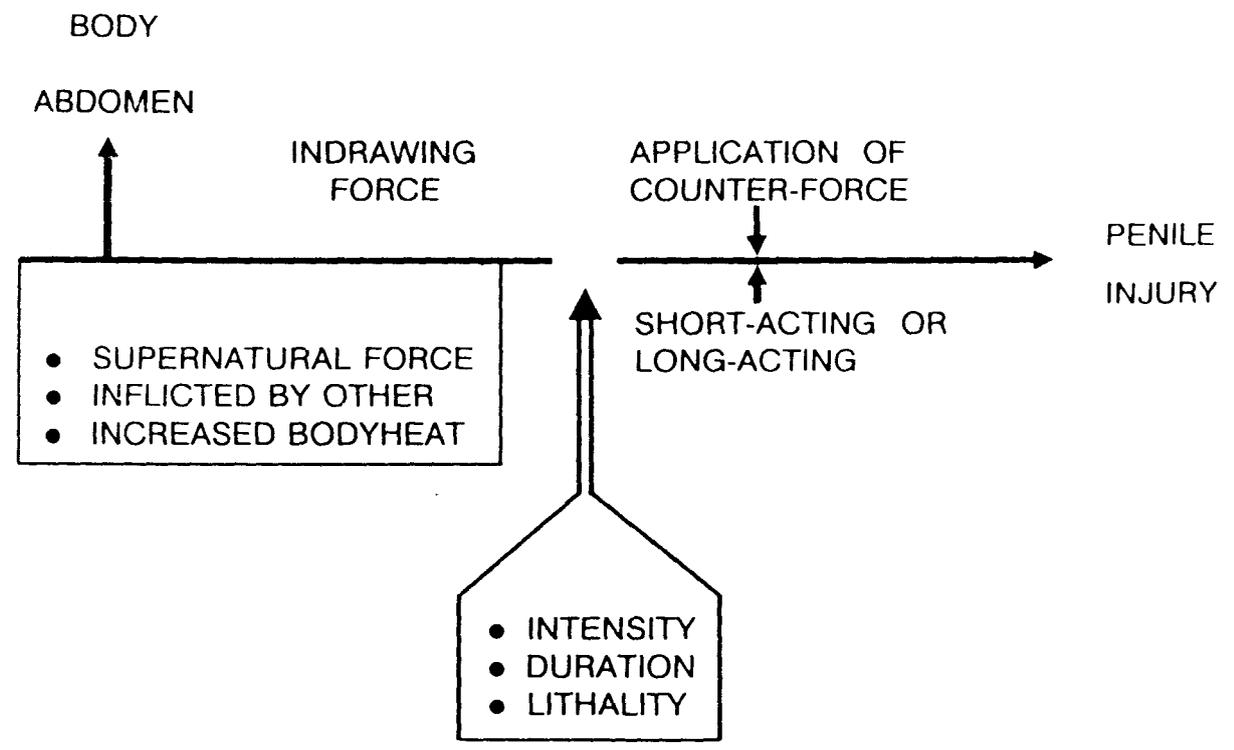
Table 2 shows the account of medical complications of water pouring (WP)/ immersion of 28 koro cases and salt-water feeding of 4 cases, of which one was a female koro (with breast symptom) case. The cases were treated at different hospitals, eg. the Siliguri sub-divisional hospital (16); Jalpaiguri sub-divisional hospital(6); Mal rural hospital(3); Dinhata Block hospital(2) and North Bengal Medical Collage hospital(5). The figures in parentheses are indicating the number of cases treated at each hospitals.

Table 2. **Medical complications of koro social 'treatment'.**

n	Sex	Age in years Mean (sd)	Length of water-pouring in hours Mean (sd)	Clinical features
9	Male	26 (6.7)	6.1 (4.3)	Hypothermic shock. Bronchopneumonia
13	Male	21 (9.2)	2.3 (2.8)	Hyperpyrexia, Pneumonitis
6	Male	24 (10.7)	4.4 (2.8)	Cough, mild tempera- ture, muscular pain, weakness.
4	3 Male 1 Female	18 (3.8) 18 (3.8)	Salt-feeding/ 24 hours 2.1 (1.2) Kg.	Nausea, vomiting, loose motion, muscular pain.

Fig.4 shows the social cognitive construct of **force-counterforce** paradigm in the context of 'supernatural' causation (malevolent intra-abdominal penile pull) of koro illness. The reason of the sudden onset of supernatural force was not precisely understood either by the patient or by the people in the community, but the probable causes were related to the transgression of social sex-norms or inappropriate (or forbidden) sexual desire, wishes or thoughts (that increases body heat) of the incumbent or inflicted by other through

11/11/2014 10:00:00 AM



Force-counterforce paradigm

Fig.4

black magic. Whatever may be the primary cause, the supernatural force creates an internal force within the body (abdomen) that pulls the penis into the abdomen. So the indrawing of penis in koro is perceived as a reflection of a dynamic force acting from within with a malintent to dissolve the organ (and ultimately leads to death). The intensity, duration and lethality of this pull is thought to be the determinant variables for the clinical 'severity' of koro distress and obviously the curative prescription involves the application of counterforce, either manual or mechanical penile traction, to prevent the fatal penile dissolution. The application and the nature of external counter force (short or long acting) is being determined by the hypothetical assessment of the degree of strength of the internal pull. Needless to say, all these manoeuvres could potentially lead to penile injury (Fig. 5A, B ).

Table 3 shows the distribution of 65 male koro cases according to the type of penile traction used. Manual traction sometimes was induced by the patient himself but mechanical traction was always imposed by others.

**Table 3. Penile Traction Types (n = 65)**

Manual Traction	: 16 cases (Figs.6A,B & C)
Mechanical Traction	: 49 cases

Table 4 shows the account of 49 koro cases according to the six types of mechanical penile traction methods which were applied to indrawing penis of the patients.

**Table 4. Various Types of Mechanical Penile Tractions used in Koro Cases (n = 49).**

Type	Number of cases	Method of Traction
I.	16	Hanging Traction - by pulling the penis with a rope or clout, and a weight (brick or iron bar or stone piece or iron weight used in weighing) is tied at the hanging end and the patient is kept standing (Fig.7).



A : Infected prepuce and penile skin.



B : Soft tissue and penile skin injury.

Fig. 5



A



B



C

Fig. 6

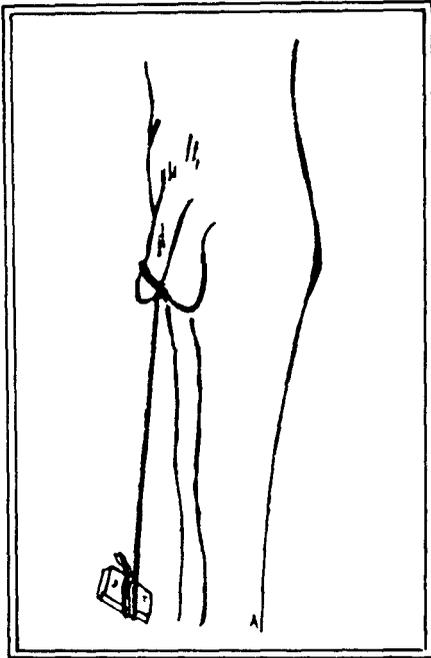


Fig. 7

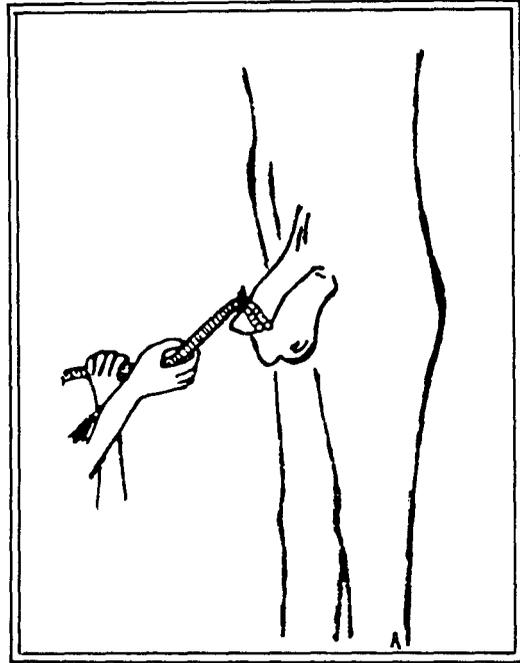


Fig. 10

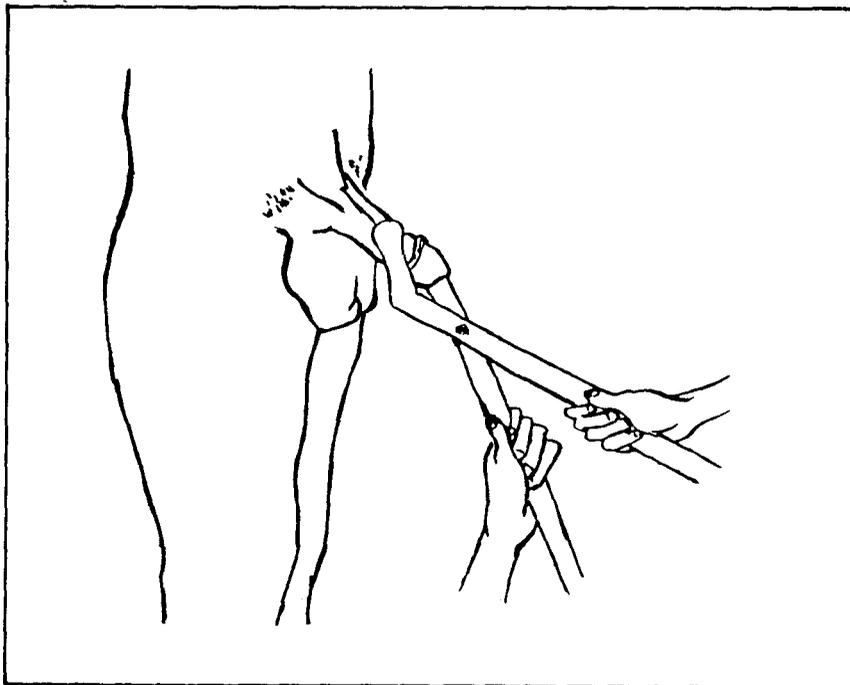


Fig. 11

Table 4 (Contd.)

Type	Number of cases	Method of Traction
II.	12	* By clothing materials like dhuti, lungi, towel or shari etc.
III	9	* By wire - naked iron wire (Fig.8) or insulated electric wire (Fig.9).
IV	7	* By rope - coconut rope (Fig.10) synthetic plastic cord or fishing thread etc.
		* The free end of the traction cord is either fixed with a stand (window bar, cot leg, bamboo post or pillar of the house) or held manually by others.
V	4	By iron cooking pincer manually held by others (Fig. 11).
VI	1	By pricking the prepuce with a fishing hook and the other end is fixed with the right great toe, the leg being kept straight by others.

Table 5 shows the account of various methods of sex-organ (penis) care in 4 koro cases.

Table 5. Penile injury due to use of irritants.

1. Potassium permanganate solution : 46 years homeopathic practitioner (R).
2. Raw 'Dettol' solution : 27 years, Public Health Engineering Worker (R).
3. Washing soda (NaOH) solution : 26 years, North Bengal State Transport Cleaner (U).
4. Common salt (NaCl) solution with ice chips and manual traction: 14 years, tea plantation worker (U).

R = Rural, U = Urban.



Fig.8



Fig.9

## B. Preventive Methods :

Fear of koro infectivity affected both rural and urban people, specially illiterate, unskilled labours and youths of urban slum areas. Two types of preventive social rituals were practised widely by the people of this region during this epidemic. The predominant ritual was the marking of forehead, both ear lobules and suprasternal fossa with white lime spots (Fig. 12A & B).

White lime ( $\text{CaCO}_3$ ) is a substance of much social importance because of its multiple usage and ritualistic significances. White lime is used in preparation of betal leaf (Pan) for chewing, slaked lime is mixed with tobacco for chewing, both of which constitute a prevalent habit of people of this region. Lime is believed to have medicinal property for which the drinking of supernatant clear lime water is a frequent home remedy for indigestion, specially in children. The application of a paste of hot lime and turmeric dust over the site of joint sprain or fracture is a widely practised traditional healing aid. Lime (with betal leaf) is an important ingredient in worship as also in black magic and spells by tantricks or folk healers. Lime and vermilion spots over earthen pots (*Ghat*) carry marks of magical and supernatural influence or force during the process of spirit-driven rituals by folk healers. Charmed slaked lime is believed to be frequently used with malevolent intent to harm others (either by mixing it with food secretly or keeping it within the house boundary).

The second preventive ritual was the use of a fine scale of black-stem arum (*Typhonium trilobatum*) (Fig.13) as a bandage wrapping the great toes of both legs. Arum of different types are edible vegetables in certain sections. These plants usually grow uncared in marshy land and on the banks of pond and are associated with many ghostly tales and religious tribal rituals. One of the Jhikris (local folk healer), a tea plantation worker, said that the arum scale offers an invisible protection to the wearer from any unholy ghostly or envious infliction of bodily harm including genital retraction.

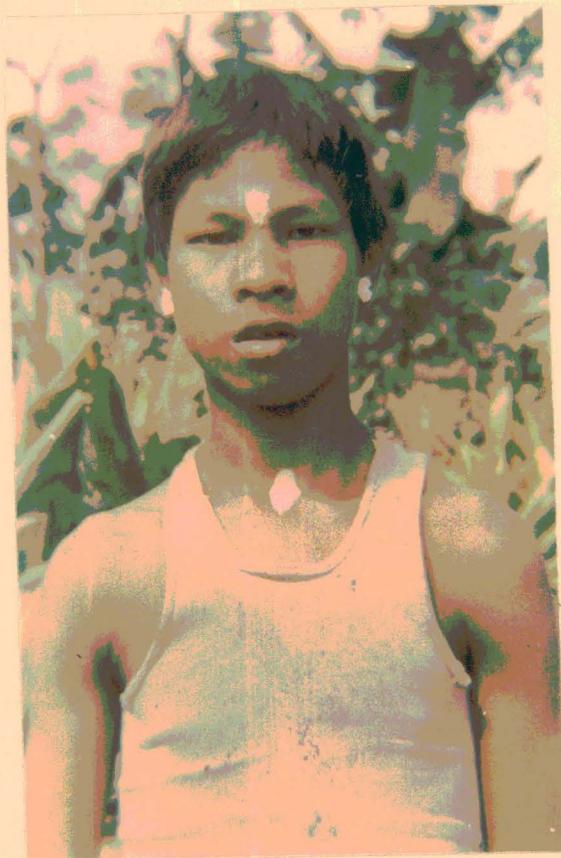


Fig.12A



Fig.12B



**Fig.13**