

# KORO — ITS ORIGIN AND NATURE AS A DISEASE ENTITY

By Gwee Ah Leng,

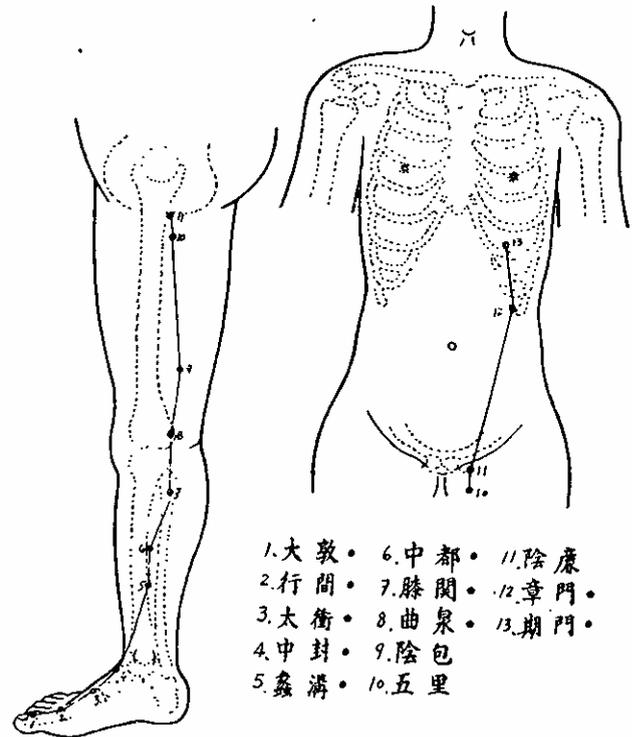
(Medical Unit III, General Hospital, Singapore.)

Koro—an exotic disease found occurring in Southern China and Malaysia—is held to be related to Culture (Gwee 1963, Yap 1965). The origin of the word is not definitely known, but related Malay words like Kuru, Kerukul, Keroh, Kerut have been suggested as possible origins. Yap (1965) suggests that it might have been a Javanese word meaning tortoise, and that there existed a tendency to refer to glans penis as tortoise head by the Chinese (龜頭). However, this would not have explained its use to refer to a shrinking state, and it may be more likely that terms like Keruk (meaning shrink) are more probable beginnings.

The Chinese at present refers to the disease as Shook Yang (縮陽), and in 1834 Pao (鮑) in New Collection of remedies of value described the entity with the following characteristics: it followed intercourse, and might have precipitating factor of exposure or ingestion of cold or raw food, it manifested in the male with abdominal pain, retraction of scrotum or penis, and when severe, with spasm and cyanosis of limbs with trismus (牙緊) and death (氣絕); and in the female with retraction of nipples, abdominal pain with the same dire results (Appendix I). This was in fact regarded as a serious emergency requiring immediate treatment. Shook Yang in fact has meant in Chinese the retraction or the shrinking of the penis.

It is interesting to note that Chinese uses the word Yin (陰) to denote both the male and female organs, and shrinking of the penis has in fact been described in very old medical literature. Thus in Nei Ching (內經) reference is made to the shrinking of penis and spasm of muscles (Appendix II), and in the Sui Period (隋), entities like shrinking of penis has been described (Appendix III). In the remedies collected by Chang Chi (張機), an exotic treatment of ash produced by the burning of the underparts of the opposite sex (燒祀散) is said to be of value (Appendix IV). All these accounts are however related to Shook Yin (縮陰), and it would appear that the term Yang (陽) was used to refer to the male organ only towards the last century or so.

From the point of view of Chinese traditional medical system, it would seem that this disease



圖十二 足厥陰肝經

Fig. 1.

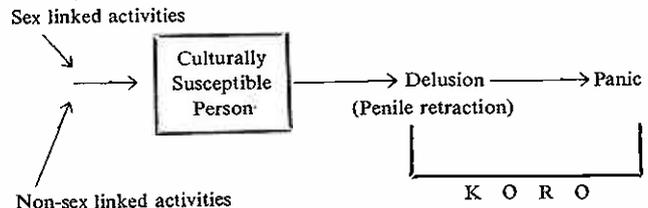
was related to the middle female meridian (足厥陰脈) which ran a course on the inner side of the lower limb to the genitalia and then to the ipsilateral side of the abdomen up to the chest (Fig. 1, Appendix V), and this meridian was governed by the liver which was particularly susceptible to worry, fear and anger. It has been also held by traditional Chinese medicine that sexual intercourse when excessive or improperly carried out is harmful to health, and that intercourse is particularly harmful during convalescence from an illness. Thus the systematic belief has been developed that sexual intercourse can be harmful under certain conditions, and that the dire penalty could be Shook Yin—a retraction of penis leading to death if untreated. In novels, and folklores, sexual intercourse is regarded as an activity which when improperly conducted, or when indulged in under the wrong set of circumstances, can lead to sudden death, accompanied, or preceded, in many instances by the retraction of the penis.

Chinese system of medicine has been in practice for at least 3,000 years, and many of its terms are now common household words such

as heat and cold (寒熱), wind and wetness (風濕); and its theoretical concepts are accepted common beliefs. A survey done in 1956 (Gwee unpublished) in Singapore showed that 90% of the Chinese patients undergoing treatment in the hospital as inpatients, had actually taken Chinese medicine for their complaints, and a good proportion was in fact carrying on the treatment whilst in hospital. A study of cases seen by Chinese physicians in 1966-1967, the result of which would be reported later, confirmed that the use of Chinese medicine was still very much prevalent. This must mean that the concept of Shook Yang or Shook Yin is still a prevailing belief, and all that is necessary to bring about the condition, is to have the right precipitating causes, usually related to sexual intercourse but not necessarily so.

Hence the cultural background is one in which the belief is held that retraction of the penis is anatomically possible, and that the manifestation is the harbinger of a serious condition with the possibility of death. That this belief has no anatomical or physiological basis would merit the term delusion. Yap in calling Koro a depersonalisation syndrome refers to the depersonalisation of the organ, but in this disease, there would appear not so much a disappearing penis as was in the case of Bychowski quoted by Yap (1965), but a deluded idea that the penis is being retracted into the abdomen, although in truth no anomaly has occurred. In other words it is actually not so much a true depersonalisation of an organ, which does not disappear in Koro, but even in the mind of the affected is very much present but in the wrong place, in other words a translocation. What follows is a manifestation of acute anxiety amounting to panic, when the patient is totally disorganised physically and mentally, and is cold in the limbs, faint, having pains and cramps, with no thought of indecency and undue exposure as he holds on to his penis with whatever device he regards as being effective for the time being. Hence the progression of the disease entity would appear to begin from one of indoctrination culturally to prepare the susceptibility, much as a posthypnotic suggestion, except that no organised hypnotic attempt has been made. Then under the right combination of factors including sexual activity, coldness of the environment, defecation, micturition, or quite innocent circumstances, but somehow linked with the precipitating causes by the patient, the delusion comes about and Koro results, to be displayed as an acute panic reaction with the delusion of

penile retraction. Put schematically, Koro may be represented thus:—



This would mean that Koro requires a preconditioning to produce a delusion, or a suggested false belief, and if one defines hysteria as a disease manifestation brought about by suggestion, then the delusion is hysterical since it is suggested to the patient by his cultural background, and being neither somatic nor organ in nature, may be called a "psychical hysteria" in line with terms like somatic hysteria. However, koro is not "psychical hysteria" alone, for with the false belief, there is now ushered in a state of panic, and unlike ordinary hysteria when the manifestation of the symptom to some extent meets the need of the patient's subconscious motivation, and hence the patient is either indifferent (La Belle Indifference) or even contented, in Koro there is seen alarm, fear and collapse. In this connection, it is interesting to note that the Chinese Physician Association, Singapore held a seminar during the Koro epidemic of 1967, and came to the conclusion that the epidemic of Shook Yang was due to fear, rumour-mongering, climatic conditions, and imbalance between heart and kidneys, and was in no way similar to the classical entity of Shook Yin (縮陰). This would mean that it still accepts that the syndrome of retraction of the penis with a high risk to life is genuine, although no verifiable authentic cases have been reported or seen. It would appear that a similar condition known as Bang-utot is known in Philippines with some death and necropsy findings (Horne 1967), but I have not been able to verify this in available literature locally or from Philippine doctors. My belief is that Shook Yang and Shook Yin are similar conditions, and the change of Yin to Yang is merely a reflection of the change in word usage: "Yang" being adapted to indicate the male genitals from the 19th century.

Adopting this postulate, the recent outbreak of Koro in an epidemic form can be explained. For some ten years, the Singapore population has been concerned about the use of hormone pellets in chicken farming. The pellets, consisting chiefly of oestrogenic hormone, are injected into the neck of the chicken to increase their growth rate. Instances have been reported that

some of the chickens were sold before the pellets were absorbed, and hence people eating the neck would get a stiff dose of oestrogenic hormone. In fact, some cases of gynaecomastia have actually been encountered, and a number of male members of the community have actually ceased to eat chicken, or scrupulously avoided the neck as an item of food. Thus, in a Chinese-predominant community already well-indoctrinated with the concept of Shook Yang, there is now in addition an awareness of injection given to domestic animals bred for food causing impotence. The announcement of swine fever, and inoculation of pigs in July 1967, has brought all these to a climax, for here is a situation where a domestic animal bred for food has been "injected", and it is conceivable that under that set of circumstances, a few existing Koro susceptible patients would develop Koro, and fear and rumour resulting from such cases would help to fan the few scattered incidences into an epidemic.

If this postulate is true, then apart from the case incidence assuming an epidemic distribution curve, namely, a rapid rise to a peak and then the fall, being a disease based essentially on rumour and suggestibility, there would be groups of cases in families, institutions, factories, and regions, and also there should be a number of cases, who, like some psychotics and psychoneurotics with a masochistic trend confessing to prominent murders which they have not committed, would manifest Koro-like complaints but with more bizarre features. Such in fact has been noted to be the case and will be further studied in greater details. Viewed in this light, the present epidemic of Koro would seem to be a mass hysterical delusion with panic reaction, and would resemble the large scale religious mania seen in Western countries and India during religious festivals, and akin to epidemics of entities like St. Vitus Dance in Europe. The rapidity with which the epidemic came under control may indicate that the cultural concept of the disease has been weakening over the years because of the different stress in present day local education.

### SUMMARY

An attempt was made to look for the origin of Koro in Chinese Culture, and it was found that the belief dated back many centuries.

The postulate was made that Koro was induced psychic hysteria with panic, and on the basis of the postulate, the recent epidemic of koro was examined, and found to support the postulate.

### REFERENCES

1. Yap P.M. (1965): "Koro—A Culture-Bound Depersonalization Syndrome," Brit. Jour. Psychiat. 3/470: 43-50.
2. Gwee A. L. (1963): "Koro—A Cultural Disease," Sing. Med. Jour. 4/3:119-122.
3. Gwee A. L. (1956): Unpublished data.
4. Horne G. (1967): Personal communication.

### APPENDIX I

#### NEW COLLECTION OF REMEDIES OF VALUE BY PAO SIAN-OW

##### CHAPTER 6—GENITALIA

*Retraction of Penis*—the remedy is seen in Chapter 14 under "fevers—the Yin type of fever".

*Yin-yan transposition*—this arises when after a fever, the poisonous heat remains in the sperm and the marrow, and cannot be discharged. If intercourse is performed with a healthy person, the illness of the man will be passed on to the woman, and vice versa, hence it is called 'Yin-yan transposition'. The patient feels heavy and short of breath, the lower abdomen is tense, the genitalia may be affected by spasm and retraction, the heat rises in the chest, the head is too heavy to be lifted up, the eyes are blurred, and the knees and calves are tight. The powder made of burnt panties is valuable.

##### CHAPTER 14—

*Yin-type of fever*—after an intercourse between the male and female, may be arising of exposure to wind and cold, or the ingestion of raw or cold food, the result is pain in the abdomen, the scrotum in the male or the nipples in the female are retracted. May be the limbs will be flexed and of a dark purplish hue, and when severe, there is trismus, and cessation of breathing. This is called Yin-type of fever . . .

*Another remedy*—After intercourse between the male and the female, the penis retracts with severe pain and feeling of death . . . this is a good emergency remedy, and one should not miss the chance of cure because the remedy is dirty. Speed is essential, for delay will mean the case cannot be saved.

##### 驗方新編—鮑相璣撰（道光丙午）

###### 卷六前陰：

陽物縮入—方見卷十四傷寒陰症傷寒內。

陰陽易病—此症乃傷寒病後，熱毒遺於精髓中，無由發洩，驟與不病人交合，男病傳女，女病傳男，故名陰陽易病，其入身重少氣，小腹裏急，或引陰中拘攣，熱上衝胸，頭重不欲舉，眼中生花，膝脛拘急，燒禪散主之。

###### 卷十四

陰症傷寒—男女交合後，或外受風寒，或內食生冷等物，以致肚腹疼痛，男子腎囊內縮，婦女乳頭內縮，或手足攣，曲紫黑，甚則牙緊氣絕，謂之陰症傷寒 . . . . .

又方一男婦交合後，陽物縮入，絞痛欲死者，此急救良方，不可嫌穢自誤，以速為妙，遲則不能救矣。

，頭重不舉，眼中生暈，四肢拘急，小腹疔痛，手足拳，皆即死。

溫病交接勞復候一

病雖瘥，陰陽未和，因早房室，令人陰腫縮入腹。腹疔痛.....

APPENDIX II

LIN-CHI ON BASIC ANIMUS

In the case of the liver, grief moves the innermost self and causes harm to the animus. When the animus is injured, the result is madness, amnesia, and lack of sperm. Without sperm, a person will not be well, and the manifestation is one of retraction of genitals with spasm of muscles, the bones of the chest are depressed, and the hair colour poor. Death usually occurs in Autumn.

靈樞本神

肝悲哀動中則傷魂，魂傷則狂忘不精，不精則不正當入陰縮而攣筋，兩脅骨不舉，毛悴色，夭死于秋。!

APPENDIX III

THE AETIOLOGY AND SYMPTOMATOLOGY OF DISEASES COMPILED BY CHOW YEN-FEN

CHAPTER 10—Fever, transposition of Yin and Yan symptoms—This disease arises in the case of man or woman just recovered from fever, and indulging in intercourse before being completely well. The illness resulting is called the transposition of symptoms of Yin and Yan . . . The symptoms are feeling of heat rising up the chest, head too heavy to be lifted up, vision blurred, and all limbs are in spasm, the lower abdomen is painful, there is carpo-pedal spasm, and, all will die instantly.

Fever and illness resulting after intercourse—The illness is cured, but the Yin and Yan are not in harmony yet. If the patient indulges in intercourse, the result will be swelling of genitalia with retraction into the abdomen, abdominal pain . . .

諸病源候論一巢元方等著

卷十 溫病陰陽易候：

陰陽易病者，是男子婦人，溫病新瘥，未平復而與之交接，因得病者，名為陰陽易也。.....其病之狀，身體熱衝胸

APPENDIX IV

THE GOLDEN MIRROR OF DOCTORS—(1739)

Annotated book of fevers. Relapse of fevers as a result of work, food, and yin and yan transposition.

In fever, yin and yan transposition is seen as feeling of heaviness, shortness of breath, discomfort in lower abdomen, may be retraction of genitals with spasm, heat rising up the chest, head too heavy to be lifted, visions blur, knees and calves are spastic, the powder of burnt, panties is of value.

醫宗金鑑 卷十訂正傷寒論註差後，勞復食復，陰陽易病篇 (1937)

傷寒，陰陽易之為病，其入身體重，少氣，少腹裏急，或引陰中拘攣，熱上衝胸，頭重不欲舉，眼中生花，膝脛拘急者，燒禪散主之。

APPENDIX V

THE COLLECTION OF ACUPUNCTURE AND MOXIBUSTION — BY LIAN REN-HUON

The middle female meridian of the feet—chong-fen (1 inch in front of the medial malleolus). This is of value in . . . difficulty in movement, painful hernia, impotence and blackouts, muscle spasms, loss of spermatic fluid, retraction of the penis into the abdomen . . . Nocturnal emissions, retraction of genitalia . . . (See Fig. 1).

針灸集成一廖潤鴻著 (同治十三年)

足厥陰肝經一

中封 (在內踝前一寸... )主治... 身體不仁，寒疝瘕厥，筋攣失精，陰縮入腹..... 夢洩遺精陰縮.....