

## Goiter in Tibetan Medicine

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The visit of two Tibetan physicians provided a unique opportunity to gain insight into a practice of medicine very different from that of Western civilization. Initial discussions indicated that the practice of medicine and mysticism were inextricably interwoven in the Tibetan culture. Accordingly, the focus of the study was directed to goiter, which is both common in the Himalayas and easy to define.

In Tibetan medical practice, illness is considered to be derived from both proximate and distant causes. Three humors, "wind," "bile," and "phlegm" are thought to be responsible for normal mental and physical functions when in balance, but disease when out of balance. Goiter was thought to be due to an imbalance of these humors. The Western discovery that endemic goiter in the Himalayas was due to iodine deficiency explained the proximate cause but did not explain why some individuals have goiter and others do not in the same iodine deficient village.

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Western medicine has shown increasing interest in Far Eastern medical practice. Acupuncture has become a rapidly growing subspecialty, and transcendental meditation has been used in the treatment of essential hypertension with reportedly good results [1,2]. Of all the countries in the Far East, Tibet has perhaps the greatest aura of mysticism. For many Westerners "Shangri-La" exists somewhere in the far reaches of the Tibetan Himalayas [3].

The visit of two Tibetan physicians, Dr. Yeshi Dhonden and Dr. Lobsang Dolma, provided a unique glimpse into the practices of Tibetan medicine. This was particularly true since Dr. Dhonden serves as physician to His Holiness, the Dalai Lama. Initial discussion made it clear that the practice of medicine and mysticism were inextricably interwoven in Tibetan culture. To better understand this very different system of medicine, we decided to focus on a specific disease. Goiter appeared to be an excellent disease process on which to concentrate for several reasons: (1) goiter was common in Tibet and should have been well known to the Tibetan physicians; (2) goiters were visible and palpable and could be described; (3) disappearance of the goiter would be a sharp end point to therapy.

The two Tibetan physicians made separate visits to North America about a year apart in 1974 and 1975. One of the authors (J.H.) served as interpreter for both visits and subsequently had a chance to visit both Tibetan physicians in Darmashal, India (current residence of H.H., the Dalai Lama) to clarify areas that were not clear during the initial discussions.

## GOITER IN THE HIMALAYAS

The existence of an endemic goiter in an extensive belt along the southern slopes of the Himalayas has been known for a considerable time [4]. The etiology of Himalayan endemic goiter had been studied intensively by Sir Robert McCarrison, who concluded that the goiter was of complex derivation and was related to faulty diet and infection with a coliform group of organisms [5,6]. He noted that goiter prevalence increased downstream from the water supply. Goiter occurred in 12% of the inhabitants in villages at the source, but the prevalence increased to 46% of inhabitants at the terminus of the river which had served as drinking channel and open sewer for the villages on its banks [7,8]. McCarrison produced goiter by administering suspended matter from these goiter-producing waters to himself and others; goiter did not occur when the water was boiled first [7,8]. In a subsequent study he found a low iodine content in the soils and noted that the urinary excretion of iodine was very low in the residents of these areas, e.g., 4–6  $\mu\text{g/liter}$  [9]. However, he found equally low amounts of iodine in both goitrous and non-goitrous individuals and concluded that there was no incontrovertible association between the urinary excretion of iodine and the occurrence of goiter [9].

## TIBETAN MEDICINE

The history of medicine in Tibet is closely connected with the history of Buddhism, which was introduced into Tibet in the Seventh Century A.D. [10]. The great physician saints in Tibet were monks, and medicine flourished particularly under the thirteenth Dalai Lama (1895–1933) when a new medical college at Lhasa was built. The six-year course was very different from traditional Western medical concepts. X-rays, surgery, and conventional laboratory procedures were not used. This tradition has persisted despite the move to India, and the practice of Tibetan medicine has persisted virtually unchanged for centuries!

Examinations were given twice a year in addition to a final examination. Once a year the students went out to gather herbs on the mountain slopes.

A typical day of a Tibetan medical student included [10]:

3:00 A.M.	Prayers and study of medical and astronomical texts
6:00 A.M.	Two hours of calisthenics
8:00 A.M.	Four hours of further study
12 NOON	Lunch
1:00 P.M.	Study of body measurement Study of nerve and vein pathways Study of medicinal plants
5:00 P.M.	Two hours free time
7:00 P.M.	Debates on astronomical and medical subjects
9:00 P.M.	Bed

## RELIGIOUS BACKGROUND OF MEDICAL PRACTICE

In order to understand the Tibetan approach to medical practice, the reader must understand that the Tibetan physician views the patient as more than a diseased body. This is particularly well described by Dr. Donden [11]:

Tibetan medicine, firmly rooted in religion and philosophy, takes man as a whole, in the empirical and transcendental aspects, as a physical entity and a metaphysical potentiality. As a body, man is a microcosmic but faithful

reflection of the macrocosmic reality in which he is imbedded and which preserves and nourishes him every second of his life; as a mind, he is a ripple on the surface of the great ocean of consciousness.

Health is the proper relationship between the microcosm which is man and the macrocosm which is the Universe. Disease is a disruption of this relationship. Unimpeded reaction of the macrocosm to such a disruption is irreversible, when death becomes the cure. Certain elements, things and factors are of help in certain kinds of disease and become specifics for such disease. The science of medicine is both descriptive and curative. The descriptive enumerates and describes the body and mind, their relationship, their normal and abnormal functioning, their diseases, their symptoms and varieties, the remedial factors in nature-elements and minerals, plants and animals and their preparation and combination.

The basic philosophy of Tibetan medicine can be stated as follows: Tibetan medicine does not limit man to sensory perception. Within and beyond the visible man there is a vast area of invisible forces, currents and vibratory structures, inaccessible to the senses, but nevertheless entirely real, concrete, and essential for the proper functioning of the body and mind.

In the Tibetan medical system, illness is derived from causes and conditions. There are both proximate and distant causes of disease; distant causes of disease may be either general or particular. The general cause of all disease is thought to be ignorance which is defined as both an absence of knowledge and a misconception of persons and phenomena. Particular distant causes of disease include desire, hatred, and obscuration which in turn arise from ignorance. Actions of desire are thought to generate an increase of "wind." Actions of hatred generate an increase in "bile" and actions of obscuration generate an increase in "phlegm." Thus, the proximate causes of disease, "wind," "bile," and "phlegm" are put into conflict and imbalance.

These three humors are responsible for normal mental and physical functions when in balance but promote disease when imbalanced, and thus are literally called the three faults (*Dosha* in Sanskrit, *Nyes Pa* in Tibetan). Imbalances of the humors may be caused by actions in other lifetimes, present conditions or by a combination of these. This theory is not very different from Hippocrates who talked about a balance between blood, phlegm, yellow bile and black bile [12]. Whether Hippocrates' theories influenced Tibetan medicine in any way is not clear.

The category of present conditions includes changes due to season, the activities of evil spirits, diet, and behavior.

1. Season: For instance, it is said that the cold of winter causes phlegm to increase, and with the melting that accompanies spring, "cold" (as in hot and cold) disorders brought on by the increase of phlegm in winter manifestly appear.

2. Evil Spirits: Spirits are divided into many types and classes, able to bring about specific imbalances of the humors by acting from without or from within.

3. Diet: Nutriment is classified as rough, light, cold, heavy, with, for instance, rough, light, and cold foods producing phlegm diseases.

4. Behavior: Imbalance of the humors can be brought on by various types of voluntary and involuntary behavior; it is said that an increase of wind, for instance, can be generated by hunger, insomnia, grief, excessive mental or verbal activity, crying, remaining in cold breezes, severe diarrhea and vomiting, losing a great deal of blood, and fatigue from excessive indulgence in lust.

The Tibetan physician must analyze a disease carefully to determine whether it has arisen mainly from actions (Karma) in a former lifetime or mainly from present conditions. This is important since the effect of medication can be limited by the inescapable effects of a previous action (Karma). In an interview in which Doctor Dhonden was asked what ailments could be more effectively cured by Tibetan rather than Western medicine, he replied; "Within the inviolable limits of Karma, we can cure any disease" [13]. In a discussion of goiter with Dr. Dolma, mention was made of a village in which virtually the entire population was goitrous. Rather than attribute the widespread condition to a specific etiological agent like the drinking water, Dr. Dolma stated that the villagers were thought to have been born in that particular village because they had bad Karma.

### GOITER IN TIBET

Eight types of goiter as described in Tibetan medicine are outlined in Table 1. Table 1 also includes possible physiological equivalents to these descriptions, but there is no way to substantiate these possible correlations. Goiter in Tibetan medicine is thought to arise from imbalance of the three humors and from disorders of "blood" and "fat." In addition there are both "lucky" and "unlucky" goiters as well as "complex" goiters.

### SPECIFIC DESCRIPTIONS

1. *rLung-Iba*—"wind" goiter. This is the most common goiter and occurs in women with children and in energetic men. The goiter grows rapidly and appears to be full of "air." Treatment includes a diet which prescribes uncooked or cold food, plus oils of sesame which are rubbed into the skin below the goiter. If there is no response after four months, the patient is treated with a *ser-ter* or "golden remover" which is heated cherry red and held on the goiter long enough to say "om-ah-hum-a." All "wind" goiters eventually disappear but 20% may need the "golden remover" (Fig. 1).

2. *Khrag-Iba*—"blood" goiter. This goiter occurs more commonly in women than in males and is attributed to blockage of menstruation. Treatment includes pills and

TABLE 1  
Tibetan Description of Goiter (IBa-ba)

Tibetan Name	English Translation	Characteristics	Possible Physiological Equivalent
(rLung-Iba)	Wind goiter	Soft center	Thyroid cyst
(Khrag-Iba)	Blood goiter	Hard, painful	Hemorrhage into cyst
(Tshil-Iba)	Fat goiter	Large	Non-toxic goiter
(Bad-Iba)	Phlegm goiter	Hard	Riedel's Struma
(mKhris-Iba)	Bile goiter	Large	Non-toxic goiter
(iDus-Iba)	Complex goiter	Hard-goes inside	Carcinoma
(gYang-Iba)	Lucky goiter	Small and soft	Diffuse non-toxic goiter in lucky person.
(Byur-Iba)	Unlucky goiter	Ugly	Diffuse or nodular non-toxic goiter in unlucky person.

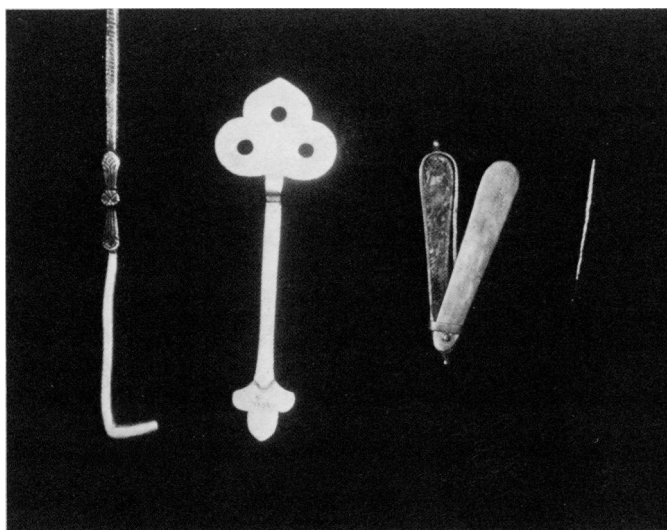


FIG. 1. Tibetan instruments used in the treatment of goiter. *Left to right*, "golden remover," template for "golden remover," case, needle.

ointment and abstention from alcohol, red pepper, and beer. Approximately 10% of patients will fail to respond. A small ligature is then placed about the neck and the external jugular vein cut with a small knife with the removal of a spoonful of blood.

3. *Tshil-Iba*—"fat" goiter. There is no sex preference, but this goiter runs in families, particularly patients who eat fatty meat. Treatment includes abstention from cheese, whey, or pork; medicines including boiled cow's urine are given. In about one-third of the cases it is necessary to use the "silver remover." The neck is burnt and lymph comes out.

4. *Bad-Iba*—"phlegm" goiter. This goiter occurs more frequently in women and is thought to be caused by a sedentary life. Treatment includes the avoidance of crayfish, oranges, and peaches. Medicine is also given. About one-half of the patients will not respond, and it is necessary to use Moxsa. A cone of Moxsa is burnt about one inch on either side of the midline.

5. *mKris-Iba*—"bile" goiter. There is no sex difference in the incidence of this goiter which may occur after a fever. Powders and ointments are also used for therapy. However, if they are not effective, there is no final treatment.

6. *iDus-Iba*—"complex" goiter. There is no sex preference in this goiter which is thought to be caused by the evil spirit for goiter (rGyal-gdon) (Fig. 2), the King Demon. This a Karmic sickness that is fatal in 50% of the cases. Treatment involves heating a metal rod until cherry red and then burning a hole over the goiter. A knife blade is placed in the hole and twisted. If there is severe hemorrhaging, the evil spirit is there and the patient will die. If treatment is not given, the patient is in great pain, unable to eat and becomes cachectic.

7. *gYang-Iba*—"lucky" goiter. Occurs in males and females equally and is small and appealing. The goiter may appear in someone in a poor family. Within one year, the family will become rich. Needless to say, no treatment is indicated.

8. *Byur-Iba*—"unlucky" goiter. Occurs equally in both males and females. If a government minister developed unlucky goiter, then he would be relieved of his position.



FIG. 2. Charm against rGyal-gdon, the King Demon. (From L.A. Waddel, *Tibetan Buddhism*. New York, Dover Publications).

## DISCUSSION

Some of the descriptions of goiter in Tibetan medicine appear to correspond with our Western classification of thyroid disease. "Wind" and "blood" goiters appear to represent thyroid cysts, while "complex" goiter almost certainly represents carcinoma of the thyroid. During our conversations, no clear description of either hyper or hypothyroidism occurred, although it is possible that the latter is represented by "phlegm" goiter.

The treatments of these various goiters involve three approaches: (1) dietary; (2) herbal medicines; (3) mechanical manipulation. Whether these Tibetan medicines include iodine is important but not clear. Attempts to obtain samples of medicines for analysis have not been fruitful. Apparently the gullet (? thyroid) of animals has been used as a cure for goiter [14]; other remedies, including the wearing of an otter skin about the neck have also been described for the treatment of goiter [15].

The concept of Karma is difficult for the Westerner to grasp. Doctor Dolma stated that there were two villages near her birthplace at the foot of Lang-ri or Elephant Mountain where everyone had goiter. The sheep also had goiter, and it was recognized that water from the stream caused the goiter. Nevertheless, these people were suspect because it was thought to be a bad Karma that placed them in this village.

The discovery that endemic goiter in the Himalayas was due to iodine deficiency and could be alleviated by iodine administration was a triumph for Western medicine [16]. The proximate cause of the goiter could be prevented. However, Tibetan medicine seems more aware that factors, (i.e., distant causes) other than the direct pathological problem may play a role in disease. Despite the language barrier, Doctors Dhonden and Dolma made it clear to the patient that they cared and would help. Although the Hippocratic approach of Tibetan medicine to proximate cause of disease may seem quaint to the Western physician, the Tibetan approach to distant causes of disease is something the Western physician might do well to ponder, not for the "curing" but for the "caring" aspect.

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