

## FUNGI IN KHANTY FOLK MEDICINE

MARET SAAR

Laboratory of Mycology, Institute of Zoology and Botany, Estonian Academy of Sciences  
(Estonia)

(Accepted November 10, 1989)

---

### Summary

The fungal flora of the forest zone of West Siberia contains an average number of species. The Khanty living there consume only half a score of them. Several fungi are used for different purposes. The article presents data on the use of *Amanita muscaria*, *Fomes fomentarius*, *Inonotus obliquus*, *Phellinus nigricans* and the puff-ball in folk medicine.

---

The Khanty (formerly called the Ostyak) are one of the peoples inhabiting West Siberia. They live on the banks of the Ob River and its tributaries, i.e., the Vasyugan, Vah, Agan, Trom-Agan, Pim, Great and Little Yugan, Kazym, Kunovat, Poluy and Synya. In older times their settlements reached farther south-east, to the Irtysh River.

According to the census of 1979, the number of the Khanty was 21,000. They speak a Ugric language belonging to the Finno-Ugric family. Anthropologically they belong to the Ural race. For centuries they have lived scattered as single families or settlements consisting of a few families. Their primaeval occupations have been fishing, hunting and reindeer-raising. Part of the people have changed their way of life by the present time and they live in big settlements and towns with mixed population. The Khanty who lead the traditional way of life do not use fungi for food.

Due to fatalism caused by the animist-shamanist world outlook of the Khanty, their folk medicine has developed poorly (Lukina, 1975). Illnesses arising without evident external reasons were thought to have been caused by supernatural beings. In order to free a person from an illness, it was necessary either to drive the strange evil being out of his body or to bring back the soul that had been taken away\*. The psychic activities of the assisting specialist formed the basis of most stages in the treatment. There are no data whether the patient was given any drugs or not. Doctors were regarded incapable of curing such diseases.

---

\*According to the Khanty world-view a person has several souls (Kulemzin, 1984).

TABLE 1

## FUNGI IN THE KHANTY FOLK MEDICINE

Diseases and symptoms	Fungus	Method of administration
Anthelmintic*	<i>I. obliquus</i>	Tea
Astringent*	An unknown fungus growing on <i>Pinus sibirica</i>	Broth
Diarrhoea	An unknown fungus	No data
Disease:		
Several diseases	An unknown fungus growing on <i>Larix</i>	No data
Any disease	<i>I. obliquus</i>	Tea
General internal cleaning	<i>I. obliquus</i>	Tea
Heart disease*	<i>I. obliquus</i>	Tea
Liver disease	<i>I. obliquus</i>	Tea
Prevention of diseases and death	<i>F. fomentarius</i>	Smoke
	<i>I. obliquus</i>	Smoke
Psychophysical fatigue	<i>A. muscaria</i>	Dried fruit body
Stomach disease	<i>I. obliquus</i>	Tea
Stomach-ache	<i>I. obliquus</i>	Tea
Stopping bleeding	<i>F. fomentarius</i>	Cotton
	Puff-ball	Dusty fruit body
Tooth decay	<i>Ph. nigricans</i>	Chewing tobacco
Toothache	<i>Ph. nigricans</i>	Chewing tobacco
Tuberculosis	<i>I. obliquus</i>	Tea
Viper bite*	<i>A. muscaria</i>	Infusion
Warming of aching parts	<i>F. fomentarius</i>	Cotton
Washing of external sexual organs during menstruation and after birth	<i>I. obliquus</i>	"Soap water"
Washing of the body	<i>I. obliquus</i>	"Soap water"

\*Information obtained from N. Lukina (1976, 1984) and V. Kulemzin (personal communication) different from the author's field work data.

Wounds, burns, carbuncles, etc. were mainly cured on one's own, as well as headache, toothache, spitting of blood and gastric diseases. The knowledge of the composition of medicines and their use were not the privilege of any definite people, however, certain operations were allowed to be performed by specialists only.

Literary data on the use of fungi in folk medicine are very scanty. Information obtained from N. Lukina (1975, 1984) and V. Kulemzin (in personal communication), different from the author's field work data, have been marked with the asterisk (\*) in the Table 1.

Data obtained by questioning 8 women and 10 men on the upper and middle reaches of the Great Yugan River in 1987 show that the Khanty have used (and still use) fungi in the treatment and prevention of diseases and for sanitary purposes. The scope of the fungi applied was very narrow. *Amanita muscaria* (Fr.) Pers. ex Hook. was the only agaric used, from among polypores three species were made use of, viz. *Inonotus obliquus* (Fr.) Pilát, *Fomes fomentarius* (Fr.) Fr. and *Phellinus nigricans* (Fr.) Karst. Gasteromycetes, too, provided only one fungus for application, i.e. the puff-ball. In two cases the fungus remained unidentified. Table 1 presents the diseases and separate symptoms requiring the use of fungi as well as the ways of their application.

The production and use of medicines was simple.

#### *A. muscaria*

In case of psychophysical fatigue the fungus was administered internally (see M. Saar, 1990). Intoxication by viper bite called for its external application. About the latter usage, however, there is only one piece of information (Vladislav Kulemzin, 1987, personal communication). The bitten spot was near the ankle. In order to prevent the poison from spreading upwards, the man rubbed his leg with *Amanita* infusion in the downward direction, starting from the hip. The infusion was obtained by soaking a dry fruit body in warm water.

#### *F. fomentarius*

This fungus was used as smoke or cotton. The smoke was obtained by burning the fruit bodies of the fungus alone or together with silver fir bark. The burning was performed in a chimney or in a tin pail. The smoke was made when a person died and it was continued until the deceased had been taken out of the house. The people coming from the funeral also had to pass through smoke. The aim of the procedure was not to let the dead have any influence on the living.\*

The cotton was made of the fungus flesh between the pileus cuticle and the tube layer. The flesh was separated from the dried fruit body and it was pounded in a mortar until it was soft. It was kept in a separate box. The manufacturing of cotton called for very big fruit bodies. In order to stop bleeding a piece of cotton was pressed on the wound.

Warming compresses were made only to extremities and joints, never to the body. The aching area was covered with cotton and tied with some cloth. The wrapping was removed when the pain had ceased.

#### *I. obliquus*

This fungus was used in the form of tea, "soap water" and smoke. Tea

---

\*The author cannot decide whether the procedure had a sacred significance only or whether there was also something rational in it.

was made as follows. The fungus was cut into small pieces with a knife, the pieces were put into boiling water and boiled a few minutes. Approximately 3 cm<sup>3</sup> of fungus were necessary to get a 2.5-l pot of tea. Tea was drunk until the indispositions were over.

To get "soap water" the fungus was put into the fire. There it grew red as smouldering charcoal. Then it was put into a pail of hot water and stirred until it broke into small pieces. The black water thus obtained has a strong cleaning and disinfecting ability. One of the persons questioned by the author compared it to the effect of K<sub>2</sub>MnO<sub>4</sub> solution and added that women who washed themselves with such water, never took ill. In older times it had been used instead of soap to wash the hands, feet and sometimes also the whole body.

*I. obliquus* was also used for ritual washing and cleaning performed after menstruation (Kulemzin and Lukina, 1977). Sometimes a new-born child was subjected to this rite (Kulemzin, 1984).

Smoke was made by burning the fungus.

### *Ph. nigricans*

This fungus was used as ash in the composition of chewing tobacco. People consumed fruit bodies growing on birch only. A mixture was made of 50 g of makhorka (cheap tobacco) and from one soup-spoonful to one soup-spoonful and one teaspoonful of ash. It was stirred in a wooden mortar with a wooden club, adding a little water. Damp grainy dust thus obtained was kept in a tobacco case which was covered with a lid. In winter the mixture was made for a longer period of time, in summer for only a few days, as it was said not to be preserved for long.

In order to get ashes, the fruit bodies were laid into the fire, after igniting they were put into a pail which was then placed between the smouldering charcoal. In 3–4 h greyish-white very light powder remained in the pail. According to one person questioned by the author the pail was covered with a lid and buried in the earth where the fungi burned slowly until the process was completed. Sometimes, especially in still weather, the fungi were left to burn in the fire only.

The ashes were tasteless. The consumer took a fingertipful of tobacco and put it in his mouth between the cheek and the gum, occasionally also between the lip and the gum. The tobacco was kept there until the effect passed and then spat out. The tobacco was said to be bitterish at first, becoming tasteless at the end of the procedure. The effect lasted 5–6 min and resembled that of a cigarette. Chewing tobacco was used in the same situations and as frequently as was the case with cigarettes and pipes. Those who consumed chewing tobacco did not usually smoke, some people, however, did both. Chewing tobacco was used by men as well as women.

The aim of consuming chewing tobacco was to induce a state similar to that obtained by cigarette smoking. The side-effect of its systematic use had a prophylactic value, viz. it prevented the teeth from decay. In order to relieve toothache, chewing tobacco was put directly on the aching tooth.

N. Lukina (1984) had similar information on the effect of the mixture made of tobacco and a polypore growing on birch. Such a mixture had been sucked in case of toothache. Its permanent use had been said to prevent any tooth trouble.

### *Puff-ball*

Old dusty fruit bodies were placed on the wound with the aim to stop the bleeding. (The specification of the fungus is impossible as the author had no material at hand and had to confine herself to oral descriptions given by the informers.)

### **Acknowledgements**

The author expresses sincere gratitude to Dr. N. Lukina and Dr. V. Kulemzin, Museum of Archaeology and Ethnography of Siberia, Tomsk State University, for useful information. Thanks are also due to Mrs. U. Martinson, Institute of Zoology and Botany, Estonian, Acad. Sci. for linguistic and technical help in preparing the manuscript.

### **References**

- Kulemzin, V.M. (1984) *Chelovek i priroda v verovaniyah khantov*, Tomsk.
- Kulemzin, V.M. and Lukina, N.V. (1977) *Vasyugansko-vakhovskiy khanty v kontse XIX — nachale XX vv.*, Tomsk.
- Lukina, N.V. (1975) *Narodnye sredstva po sohraneniyu zdorovya i zhizni u vostochnykh khantov. Etnograficheskiye aspekty izucheniya narodnoi meditsiny, Tezisy vsesoyuznoi nauchnoi konferentsii 10—12 marta 1975 g.*, Leningrad, pp. 26—27.
- Lukina, N.V. (1984) *Zametki o sisteme pitaniya khantov, Zapadnaya Sibir v epokhu srednevekovya*, Tomsk, pp. 168—179.
- Saar, M. (1991) Ethnomycological data from Siberia and North-East Asia on the effect of *Amanita muscaria*. *Journal of Ethnopharmacology* 31, 157—173.