Traditional goat health management practices in Chamba district of Himachal Pradesh

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Animals are reared under two systems, viz. the sedentary and the migratory/transhumant in Chamba district. The fodder needs of the animals are met through traditional feed resources, but the migratory system of animal rearing is totally dependent on grazing in natural grasslands. The grasslands have been infested with numerous poisonous plants, causing poisoning to animals due to heavy grazing. Some of these poisonous plants are quite fatal and are major causes of livestock mortality and morbidity as veterinary services are not adequately available to provide health cover to all the animals. The farmers have to travel long distances to get their animals treated in the veterinary dispensaries. The farmers have devised their own traditional methods of treating the animals. They possess some knowledge based ethnoveterinary practices and able to distinguish the poisonous and medicinal plants to cure diseases. The communication aims at presenting the traditional animal health management practices used by the farmers with special reference to goat health in Chamba district of Himachal Pradesh.

Keywords: Ethnoveterinary practices, Folk medicine, Gaddis tribes, Goat health management, Herbal remedies, Himachal Pradesh, Livestock, Medicinal plants

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Livestock rearing has been the most important component of the farming systems of the Himalayas since time immemorial. The total livestock population (7.17 lakh) of Chamba district consists of 2.43 lakh cattle, 0.35 lakh buffaloes, 2.62 lakh sheep and 1.77 lakh goats. Thus, animal rearing in Chamba is dominated by cattle sheep and goats. Two common livestock-rearing systems in Chamba district of Himachal Pradesh are the sedentary and migratory (transhumant). Under the sedentary system of animal rearing, mostly cattle and small flocks of sheep and goats are reared, and the animals are stationed around individual households and are mostly stall fed. The migratory system of animal rearing is an ancient system and is very well established in the Himalayas. Gujjars and Bakarwals of Jammu and Kashmir and Gaddies of Himachal Pradesh are the dominant tribes who rear their animals, mostly sheep and goats, under this system. Some reports of ethnoveterinary practices from various parts of the country are available.

A survey, conducted in Chamba district reveals that veterinary services are available from the veterinary dispensaries of the Government of Himachal Pradesh to some of the areas, but many of the areas suffer because of non-availability of veterinary services. The farmers have devised their own traditional methods of treating the animals. The farmers have sufficient indigenous knowledge of the diseases and their treatment. Indigenous knowledge is the knowledge developed around the specific conditions of the environment indigenous to a particular geographic area. Rural people possess knowledge regarding the plant animal relationships like toxic and medicinal plants. They know to cure diseases and to maintain animals in good health. Indigenous knowledge is cost effective, readily available, social desirable and economically affordable. Special efforts are needed to understand, document, validate and disseminate the information. The information based on the local knowledge with regard to veterinary practices in the study area has been collected by conducting discussions and interviews with the farmers.

Methodology

Three detailed surveys were conducted in Chamba district during three different seasons, viz. summer,
monsoon and winter. A detailed proforma was prepared for collecting information from the farmers. Discussion on various animal ailments and their cures were noted. Live specimens of some medicinal plants were collected and were identified. The sample size during the surveys was restricted to 25 families. Same families were interviewed during all the three seasons.

**Results and discussion**

The most common ailments of animals in the study area and their local management are enumerated below:

*Management of plant poisoning:* A number of poisonous plants are present in grasslands. *Lantana camara* Linn. (Local name: *bara phulnoo*) is one of the major causes of mortality and morbidity to the exotic animals. Another poisonous plant, which grows in close association with forages on grasslands quite fatal to the animals is *Ageratum houstonianum* Mill. Roots of *Lantana camara* Linn. are removed and crushed to make a bolus and given to goats to counteract the effect of poisoning caused due to consumption of these poisonous plants. This is very commonly used practice by the *Gaddis* of Himachal Pradesh.

*Lantana toxicity:* *Lantana camara* Linn., an exotic perennial shrub is one of the ten-worst weeds of the world and the most obnoxious in the state of Himachal Pradesh. Low and mid hills are, particularly, very heavily infested where uncultivated lands, wastelands, forests, pastures and roadsides are completely covered with it. It causes fatal poisoning in the animals, while browsing on its leaves. The toxic effects of lantana poisoning include skin disease, photosensitization and constipation. The farmers mostly drench sour *lassi* (curd thinned by adding water) to the poisoned cattle. Some farmers mix sour *lassi* with mustard oil and *Aonla* (*Emblica officinalis* Gaertn.) water and drench the animal during morning and evening. Mustard oil causes purgation and sour *lassi* and *Aonla* water help in counteracting the effect of lantana poisoning. Some farmers in Chamba give *Lantana* root extract to cure poisoning. In case of *Lantana* poisoning in sheep and goats flock, the *Gaddis* chop off the apical portion of the ear of poisoned animal and allow bleeding for some time. After sometime when toxic blood drains out, they apply mud on the wound for stopping the blood and healing. It is not uncommon to find many animals with chopped ears in the migrating flocks of *Gaddis*.

**Urea toxicity:** Turpentine oil (15 ml) mixed with mustard oil (300 ml) is given to urea poisoned animals and is repeated every 4 hrs till the animal recovers.

**Mouth ulcers:** Black pepper, *ajwain* (*Trachyspermum ammi* [L.] Sprague), black salt and turmeric are mixed and rubbed in the mouth. Turmeric acts as antiseptic; black pepper irritates the ulcers and salt increases the saliva secretion. The application is repeated twice a day till the ulcers vanish.

**Broken horn:** Red soil mixed with hairs of a woman is pasted on the broken horn followed by a layer of red soil over this paste. A bandage may or may not be wrapped around. The horn heals within a week.

**Diarrhoea:** Leaves of *Sapodotri* (*Bergenia* species) are crushed and given to the animals. Decoction of *Acacia catechu* Willd. (*khair*) stem bark is given to the suffering animal. Leaves of *Dalbergia sissoo* Roxb. are also fed with barley flour for this purpose.

**Foot and mouth disease:** Foot and mouth disease (FMD) is also a common problem in the area. A mantra is written on the leaves of *Bhoj Patra* (*Betula utilis* D. Don), which is then covered with blue cloth and tied round the neck of the animal. Oil of *Cedrus deodara* Loud. is also applied on the feet to control maggots. Resin from *Butea monosperma* Kuntze (*Palas*) is applied inside the mouth of suffering animal. Leaf juice of *Pongamia pinnata* Pierre (*Karanj*) is poured over the hooves of animal infected with FMD.

**Haemorrhagic septicaemia and black quarter:** Leaves of *Kide ki lukdi* (*Arisaea speciosum* Mart.) mixed with butter, bolus is made and given to the animal.

**Abortion:** A Talisman written by the priest or family elders (*Jantra*) is tied around the neck of the animals.

**Anestrus:** If the animal is not coming to heat, a bolus made from pigeon droppings and *gur* (*Jaggery*) is given to animal once a day up to one week. Feeding of olive leaves (2-3 kg/ day) also induces heat. Salt (250-300 gm) mixed with maize flour is given to the animals once a week to induce heat.

**Injury:** Paste of *Haldi* (turmeric) mixed with mustard oil is applied on the wound. Bark of *Arjuna* tree (*Terminalia arjuna* Wight & Arn.) crushed and mixed with mustard oil is pasted on the wound. In case of broken leg, leg is tied with sticks and *Bhoj patra* (*Betula utilis*) leaves.
Leech infestation: Sometimes, leech enters into the nose of the animals and bleeding starts. In that case, salt is dissolved in a glass of water and the salty water is poured into the nose of the animal, after some time the leech come out.

Bloat: Occurrence of bloat is a major problem. At higher altitude, consumption of dhudali grass (Valaris solanacea Kuntze) found near streams of water in large quantity leads to bloat. In this case, wood ash mixed with water given to animal leads to diarrhoea. Washing soap also mixed with water and given to animal causes diarrhoea and gives relief to the suffering animal.

Micturition: In case of micturition, paste of red chilly powder mixed with mustard oil and applied on the sheath of the penis causes irritation.

Hair loss: In case of hair loss, which is locally known as maze, the skin becomes hard. Tobacco leaves boiled in water is applied on the skin with the help of cloth.

Indigestion: Leaves and inflorescence of Cannabis sativa Linn. (Bhang) are crushed and given to the animal for two days.

Maggots: Butea monosperma (Palas) seed powder is applied to kill maggots in sore places. Schleichera oleosa Oken. Seed powder is also applied on ulcers for removing maggots in animal.

Wounds: Cedrus deodara Loud. oil is applied to the foul ulcers and wounds. Syzygium cumini Skeels (Jamun) leaves are also used in the form of paste.

Fractured limbs: Young shoots of Grewia oppositifolia Buch.-Ham. ex D. Don (Dhaman) are used as splints for bandaging fractured limbs and the fresh green bark is used as bandage.

Dislocated bones: Paste of Bombax ceiba (Semal) bark and turmeric is applied on dislocated bones.

Ticks and lice (Ectoparasites): Cedrus deodara Loud. (Deodar) oil is applied on the skin of the animals to kill flies, ticks and lice.

References