

Attachment II-Common Camel Diseases
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Introduction

The camel is subject to a broad range of diseases ranging from parasites which live in the blood of the animals to foot disease. This attachment describes the cause of the disease, treatment and prevention to enhance the life expectancy of the camel.

Intestinal Disease

Surra is called trypanosomiasis, and it is a very common disease of camels. It has many different names in the area of the world where it occurs. The disease is caused by very small parasites, called trypanosomes, which live in the blood of the animal. It is a disease that requires veterinary assistance. A blood sample is required to diagnose the disease.

Surra is Contagious

The disease is spread by flies, e.g. horse flies, which bite the camel and carry the parasites from one animal to another. These flies cannot live where it is cold or dry and are found near water or around areas of dung. Camels should be kept away from such places especially when the flies are common after rain.

Symptoms of the Disease

Sick animals may develop a fever and do not eat. They are weak and the belly and legs become swollen. Pregnant animals can lose their young. If animals are not treated they can die within a few weeks of showing the first signs of infection. Other animals may stay sick for many months or even years. They are weak and the hump becomes smaller and smaller. These animals can develop skin problems and most suffer from lung diseases. They will usually stand facing the sun.

Treatment and Control

If you believe that an animal in your community has surra, you should immediately ask your veterinary officer to examine it. He will take blood smears and samples for checking. You may need to take blood samples yourself to send to a laboratory. There are a few drugs which can be used to treat surra, e.g., Naganol and Antrycide. Do not treat camels for surra if they have had a large quantity of water following a long period without water. Treat them several days after drinking water and do not allow them to take too much water before treatment. As surra is spread by biting flies, camel owners need to know where and when these flies occur and take precautions against them by:

- Seasonal movements of camels away from fly areas.
- Regular movements of camels to avoid flies hatching from the dung in which the maggots live.
- Watering animals in the hottest time of the day when few flies are found.

Internal Parasites

The internal parasites of the camel are similar to those of sheep and cattle. Camels infected with internal parasites are weak, have poor appetite, may have diarrhea and do not put on weight. Young animals will suffer the most from any parasite.

Spread of the Disease

Camels can be infected with different roundworms in the gut. These feed off the animal. Camels can also be infected with worms in the lungs and flukes which infect the liver. When camels are slaughtered (killed) large cysts, fluid filled bags, may be found in the liver, lungs and other organs. These cysts contain many young tapeworms which will infect meat-eating animals.

Symptoms of the Internal Parasites

The parasites in the gut cause weight loss, weakness and may cause diarrhea and death especially in the young animal. Lungworms will cause breathing problems and infected animals develop a short, sharp cough. The tapeworm cysts which are found in the camel will develop into adult worms if eaten by dogs, foxes or wolves. The cysts cause damage to the body organs of the camel. Cysts in the brain will result in the animal being unable to walk or eat properly. Infected animals walk in circles; they may also become blind. However the main problem is that humans can be infected as well as the camel.

Treatment and Control of Internal Parasites

Drugs which are used to treat cattle infected with internal parasites can be used to treat infections in camels. If you notice a camel eating earth or chewing bones this is sign of worm infection of the stomach. The worms suck the blood of the camel and you should treat the animal immediately. If you believe that there is a parasite problem in the camels in your community ask your veterinary officer for advice on which drug to use to deal with the problem.

In order to prevent infection of the camel with parasites in the gut or lungs, do not allow it to graze in wet areas around water holes which are used by many animals. The eggs of most parasites will be found in such areas.

If you find cysts in organs, such as the liver or lungs, of animals which have been killed for meat, it is best not to use the organ for meat. Do not throw it away because if it is eaten by dogs, foxes or cats the disease will spread. You should bury any infected organs in a deep hole, burn the infected organs or put them in a barrel half filled with water and salt. Very salty water will kill young tapeworms in the cysts.

Skin Diseases of Camels

Infections of the skin caused by parasites are a big problem in camels. Camels can be infected by ticks and mites, and suffer from fly maggots feeding on wounds and in the nose. If it is not treated mange (mite infection) can lead to the death of a camel. Mange is very infectious and is second to Surra in causing problems and losses in camels. Mange also results in the loss of valuable wool from llamas and alpacas.

Skin Infections of Camels

Camels suffer from infections with mites and ticks, and the maggots of flies which feed on open wounds or live in the nose. Mites cause mange and infections often start on the neck, head or underbelly of the animal but will rapidly spread to cover the entire body if not treated. Camels can be attacked by many different ticks. Ticks will usually be found attached to the legs, head and the underbelly.

Spread of the Disease

If wounds are left untreated they will become infected with the maggots of different flies which feed on the blood and meat. The camel is also infected by maggots of the camel nasal fly. The fly lays its eggs around the nose of the camel and the maggots, which grow to about 1 centimeter long, hatch and feed on the inside of the animal's nose.

Mange in the Camel

Mange in camels, like surra, is a very important disease and is very infectious. Camels are infected by contact with infected animals, from mites on saddles and other equipment, and by rolling in dust where infected animals have been. Humans can also become infected.

Symptoms of the Mange Disease

The mange mite burrows into the skin and causes loss of hair and the skin becomes thick and white. Infection often starts on the head or neck, but if not quickly treated it will spread over the entire body in 2 to 3 weeks. Infected animals scratch against any solid object and do not eat well. Weight loss occur, milk production drops and animals can die. The infection is more common in colder months and when feed is scarce.

Problems Caused by Fly Maggots

Fly maggots can prevent healing of wounds and other germs may infect the wound. The maggots of the camel nasal fly are usually seen in the spring and summer. There is a discharge from the nose and the animal may sneeze. Camels are not usually seriously affected by the maggots but the activity of the adult flies trying to lay eggs is annoying.

Ringworm Infection of the Camel

Ringworm infections cause roundish, white spots on the head, neck and other parts of the body. Ringworm infection in camels is similar to that in other animals. It is infectious and will spread to other animals and can infect humans.

Treatment of the disease

Ringworm is treated by applying tincture of iodine. You should ask your veterinary officer for advice. He will take skin scrapings to discover if the problem is caused by mange or ringworm. He may advise the use of other drugs if they are available

The Foot of the Camel

The camel's foot is flat and soft and divided into two. There is a toe nail at the end of each side.

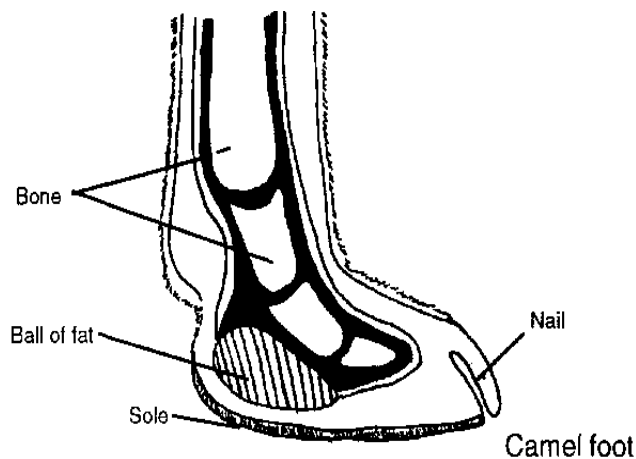


Figure # __ Camel foot

Foot Problems

The camel's foot is adapted for sandy soils and can be described as a tire filled with fat instead of air. In these days the camel walks on tarred, hard surfaced roads and ground which is littered with sharp objects such as nails, wire and broken glass. These may cause damage to the foot and result in lameness. Llamas and the alpaca have two toes on the foot with toe nails which vow like the hoof of sheen and gnats.

Type of Injury

Sharp objects such as nails, wire, glass and thorns penetrate the sole of the foot causing wounds. The pain from the wound can make the animal lame. Sometimes the foot swells from walking on hard roads.

Treatment

Simple wounds can be treated with tincture of iodine. If severe lameness occurs you must ask your veterinary officer for advice on treatment. Sometimes the camel's foot can be covered with thick cloth or leather to stop the swelling becoming worse.

Chemical Poisonous to Camels

A recent investigation by the Saudi government showed that the camels had been poisoned by fodder contaminated with an antibiotic called “salinomycin”, often added to chicken feed but poisonous to camels. A mill had tried to double production of camel fodder by using a factory line normally devoted to chicken feed. When H.R.H. King Abdullah heard about the incident, he ordered payments of 20,000 riyals, about \$5,330, for every camel that died from eating the contaminated feed. Camel breeders said the explanation of the fodder poisoning and the payments had come as a relief, allowing them to close an anxious chapter in the history of Saudi camel husbandry.