Medical References

Anthrax:

Anhrax, a highly infectious and fatal disease of cattle, is caused by a relatively large spore-forming rectangular shaped bacterium called Bacillus anthracis. Anthrax causes acute mortality in ruminants. The bacteria produce extremely potent toxins which are responsible for the ill effects, causing a high mortality rate. Signs of the illness usually appear 3 to 7 days after the spores are swallowed or inhaled. Once signs begin in animals, they usually die within two days.

Hoofed animals, such as deer, cattle, goats, and sheep, are the main animals affected by this disease. They usually get the disease by swallowing anthrax spores while grazing on pasture contaminated (made impure) with anthrax spores. Inhaling (breathing in) the spores, which are odorless, colorless, and tasteless, may also cause infection in animals and people.

Symptoms:

- Sudden death (often within 2 or 3 hours of being apparently normal) is by far the most common sign;
- Very occasionally some animals may show trembling, a high temperature
- Difficulty breathing, collapse and convulsions before death. This usually occurs over a period of 24 hours;
- After death blood, may not clot, resulting in a small amount of bloody discharge from the nose, mouth and other openings

Treatment and control

- Due to the acute nature of the disease resulting in sudden death, treatment is usually not possible in animals even though Anthrax bacilli are clines. Treatment is of use in cases showing sub-acute form of the disease.
- In most cases, early treatment can cure anthrax. The cutaneous (skin) form of anthrax can be treated with common antibiotics.

Preventive measures:

- Regular annual vaccination of animals in endemic areas will prevent the disease from occurring.

- Vaccination may be carried out at least a month prior to expected disease occurrence in endemic areas.Never open a carcass of an animal suspected to have died from anthrax.
- Contact a veterinarian immediately if the following symptoms are seen and seek advice on control measures to be adopted.
- Fever (106-108°F), loss of appetite, depression and dullness
- Suspended rumination3. Rapid pulse and heart rates
- Difficult breathing (dyspnoea)
- Lameness in affected leg
- Crepitation swelling over hip, back & shoulder
- Swelling is hot & painful in early stages whereas cold and painless inter.
- Recumbency (prostration) followed by death within 12-48 hrs.

Black quarter (black-leg)

It is an acute infectious and highly fatal, bacterial disease of cattle. Buffaloes, sheep and goats are also affected. Young cattle between 6-24 months of age, in good body condition are mostly affected. It is soil-borne infection which generally occurs during rainy season. In India, the disease is sporadic (1-2 animal) in nature.

Causal organism: it is a bacterial disease caused by Clostridium chauvoei.

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Treatment:

- Early treatment can be possible to complete cure of the animal.
- Consult with veterinarian immediately.

Ethnovet practice :

The following measure is to be taken up in the month of May / June every year.

Exudates of thirugukalli (Euphorbia tirucalli), kodikalli (Sareostemma brevistigma), aththi (Ficus racemosa), banyan tree (Ficus bengalensis), madara (Calotropis gigantea) are taken at

the rate of 1 to 15 drops each in a stainless-steel vessel and mixed with 50 ml of sesame oil and ragi flour are added and made into a paste. This paste is applied as dot (coin size) in each animal in the groin region. (the above material may be used for about 50 animals).

Foot and mouth disease

The foot-and-mouth disease is a highly communicable disease affecting cloven-footed animals. It is characterized by fever, formation of vesicles and blisters in the mouth, udder, teats and on the skin between the toes and above the hoofs. Animals recovered from the disease present a characteristically rough coat and deformation of the hoof.

In India, the disease is widespread and assumes a position of importance in livestock industry. The disease spreads by direct contact or indirectly through infected water, manure, hay and pastures. It is also conveyed by cattle attendants. It is known to spread through recovered animals, field rats, porcupines and birds.

Symptoms

- fever with 104-105o F.
- profuse salivation - ropes of stringy saliva hangs from mouth.
- vesicles appear in mouth and in the inter digital space.
- lameness observed.
- cross bred cattle are highly susceptible to it.

Treatment

- The external application of antiseptics contributes to the healing of the ulcers and wards off attacks by flies.
- A common and inexpensive dressing for the lesions in the feet is a mixture of coal-tar and copper sulphate in the proportion of 5:1.

Precautions

- heavy milch animals and exotic breeds of cattle bred for milk should be protected regularly.
- it is advisable to carry out two vaccinations at an interval of six months followed by an annual vaccination programme.
- isolation and segregation of sick animals. It should be informed immediately to the veterinary doctor
- disinfection of animal sheds with bleaching powder or phenol
- attendants and equipment’s for sick animals should be ideally separate
- the equipment’s should be thoroughly sanitized
- proper disposal of left over feed by the animal
- proper disposal of carcasses

Ethnovet prevention practice:

When there is a outbreak in the nearby villages /surroundings take tulasi (Ocimum sp) leaves 100 gm, a pinch of common salt and turmeric rhizome 2 pieces and grind them. This has to be squeezed to obtain extract and administered orally. The residues left over can be used for smearing over the mouth region, foot region. This is repeated.

Rabies (Mad dog disease)

Rabies is a disease of dogs, foxes, wolves, hyaenas and in some places, it is a disease of bats which feed on blood.

The disease is passed to other animals or to people if they are bitten by an animal with rabies. The germs which cause rabies live in the saliva of the sick (rabid) animal. This is a killer disease but not every dog which bites is infected with rabies.

When the rabid animal bites another animal or human, the germs which live in its saliva pass into the body through the wound caused by the bite. The germs travel along the nerves to the brain. The time between the bite and the first appearance of signs that the bitten animal or human has been infected can take from 2 to 10 weeks or more. The time taken depends on the distance of the bite from the brain. If the bite is on the face or head, the bitten animal or human will quickly show signs, but if the bite is on the leg it will take much longer for signs to develop.

General signs of rabies

You should first look for the marks of the bite and discover where and when the animal was bitten. All rabid animals show similar signs in the beginning.

- they change their normal behaviour and behave very strangely.
- They stop eating or drinking.
- Male animal will try to mate (mount) other animals.
- there is no change in the body temperature.
- These signs will continue for 3 to 5 days. Then, before it dies, the animal will develop one or the other of two types of the disease:
- the furious (mad) type of the disease makes the animal aggressive and it will bite anything.
- The quiet (dumb) type when the animal is quiet and does not move.

Rabies in the dog

Dogs show either of the two types of rabies.

1. a dog with the dumb or quiet type of the disease cannot move. It looks as if it has a bone stuck in the mouth and saliva drips from the mouth.
2. rabies in the dog lasts about 10 days before the animal dies. If the animal does not die after this length of time then it may not be suffering from rabies.

Rabies in sheep, goats and cattle

Rabies is characterised by the animals becoming restless and excited. They may bite themselves and saliva drips from the mouth. The most important sign in cattle is that the animal bellows (calls) very frequently and with strange sound. The animals will become paralysed and die.

Rabies in the horse and camel

The horse will show the furious (mad) type of the disease. It will kick and bite and show signs similar to colic. The animal will die after paralysis of the back legs.

In the camel the signs of rabies are similar to those shown by an animal in the rut.

What to do with a biting dog

Remember that not every dog which bites has rabies. If the dog belongs to somebody ask the owner about its normal behaviour. If the dog is showing signs of rabies you must inform your veterinary officer immediately. The dog must be shot and if it has bitten anybody, they must be taken to a hospital immediately for vaccination.

Control of rabies

Dogs in your community can be vaccinated against rabies. You should ask your veterinary service about vaccination against rabies. If there is an outbreak of rabies, the livestock in your community can be vaccinated too.

Treatment (ethnovet practices) :

Leaves of chirchra (Achyranthes aspera) 100gm and onion 50 gm are ground well and smeared over the bitten place. The extract of these ingredients is administered orally twice in a day.

Blue tongue

Bluetongue, a disease which is transmitted by midges, infects domestic and wild ruminants and also camelids, however sheep are particularly badly affected. Cattle, although infected more frequently than sheep, do not always show signs of disease. Virus spreads between animals occurs via the midges of Cullicoides species.

The likelihood of mechanical transmission between herds and flocks, or indeed within a herd or flock, by unhygienic practices (the use of contaminated surgical equipment or hypodermic needles) may be a possibility.

Clinical signs include:

Sheep : eye and nasal discharges, drooling, high body temperature, swelling in mouth, head and neck, lameness and wasting of muscles in hind legs, haemorrages into or under skin, inflammation of the coronary band, respiratory problems, fever, lethargy.

In cattle : nasal discharge, swelling of head and neck, conjunctivitis, swelling inside and ulceration of the mouth, swollen teats, tiredness, saliva drooling, fever.

Note: a blue tongue is rarely a clinical sign of infection

Control:

Inspect stock closely, particularly focusing on the lining of the mouth and nose and the coronary band (where the hoof stops and the skin starts). If an animal is suspected as having bluetongue, it must be reported as quickly as possible. Telephone your local animal health office immediately.

Preventive measures and treatment (ethovet):

Since the animal is not taking any feed the starvation may lead to death. So the animal has to be administered orally the following food. Banana fruits (one) smeared with sesame oil (50 ml) for 2 to 3 times. By this animal will recover little. However, this will not control the disease fully. Next the leaf pulp of "sothukathalai"(Aloe vera) has to be administered daily. Administering of Aloe vera has to be continued for more days till the animal fully recovers from this disease. By this treatment the infected animal will recover from the disease. The disease will not spread to other animals if all animals are administered with Aloe vera as a preventive treatment. Administering aloe vera also increases the body weight of animals as it is against all intestinal parasite.

Pox

Epidemiology : sheep-pox is a highly contagious disease. It causes a mortality of 20 to 50 per cent in animals below the age of 6 months, and causes damage to the wool and skin in adults. Of the pock diseases, sheep-pox ranks only second to human small-pox in virulence. The disease is transmissible to in-contact goats but not to other species of animals. It, however, spreads slowly.

Symptoms : The disease in characterized by high fever, and symptoms of pneumonia and acute enteritis. Skin lesions appear particularly in parts free from wool, notably around the eyes, inner side of the thigh, udder and under surface of the tail. The internal organs such as trachea, lungs, kidneys and intestines are also affected. The disease results in emaciation and, as already mentioned, frequent deaths of affected animals.

Treatment, prevention and control :

The diseased animal should be treated with palliatives. In the young ones nursing is more important than medication. The infected litter should be burnt and the bedding changed every day. Affected animals should be kept on soft diet. The ulcers on the skin should be washed with potassium permanganate lotion and dusted with boric acid; strict hygienic measures should be adopted.

Preventive measures and treatment (ethnovet):

External application of paste prepared by grinding neem leaves, tulsi leaves each 100 gm and turmeric powder- 50gm sprinkled with sufficient water. Continue for 3 to 5 days. Administer orally the same mixture by diluting with water.

Brucellosis of sheep

Transmission : The mode of entry is by ingestion or via conjunctiva. The aborted foetus, vaginal discharge and milk from infected goats contain a large number or organisms.

Symptoms in infected goats and sheep state of abortion may occur followed by a quiescent period during which a few abortions occur. The aborted animals do not breed. After 2 years or more another abortion storm is likely to occur.

Diagnosis, treatment and control:

It is not possible to diagnose brucellosis on the basis of symptoms alone. The suspicion is aroused when humans in contact suffer from undulant fever and there is poor breeding record in goat herd and evidence of mastitis. The diagnosis can be done by the isolation of organisms and by serological tests.

There is no adequate treatment:

This is based on hygiene, vaccination, testing and disposal. Good management practice is essential. Separate quarters should be provided for kidding. Immunization can be done with attenuated as well as killed vaccines. The test and disposal procedure is highly desirable.

Tetanus

This is an infectious, non-febrile disease of animals and man, and is characterized by spasmodic tetany and hyperaesthesia. This disease is prevalent all over the world.

Transmission : Infection takes place by contamination of wounds. Deep punctured wounds provide favourable conditions for the spores to germinate, multiply and produce toxin which is subsequently absorbed in the animal body. The micro-organism is present in soil and in animal faeces, and is carried into the wound by a penetrating object. The organism is present in the intestine of normal animals, and under some undetermined conditions multiplies rapidly and produces toxin in sufficient quantities to be absorbed and cause the disease.

Symptoms : The incubation period is generally 1-2 weeks but it may be as short as 3 days. Tetanus affects many species of domesticated animals but occurs particularly in horses and lambs; less frequently in adult sheep, goats, cattle, pigs, dog and cats; and rarely in poultry. The initial symptoms are mild stiffness and an unwillingness to move all the animals. More severe symptoms develop after 12-24 hours which are stiffness of limbs, neck, head, tail and twitching of muscles. The spasms develop in response to noise. In terminal stages ears are erect, nostrils dilated, nictitating membrane protruded. Mastication becomes very difficult because mouth cannot be opened, hence the name lockjaw.