University of Baghdad

College of Veterinary Medicine

Dept. of Vet. Public Health/ Meat Hygiene Division

Meat Hygiene Course/ 5th. Year

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Theory Lecture #: 2 2nd.Semester

 **Conditions induced by transportation**

The carriage of livestock may produce several illnesses in animals which are directly induced by transportation.

* **Transit fever** affects store cattle after long journeys; the disease, which is often fatal, shows lesions of lobar pneumonia and acute enteritis on post­mortem inspection. (*Pasteurella multocida* and *Mannheimia haemolytica)*
* **Transit tetany**, which affects cows in the later stages of pregnancy, shows symptoms similar to milk fever although there is an absence of specific post-mortem lesions
* Injuries expected in transit
* Bruising in transit often occur as a result of careless handling, trampling
through overcrowding, and the improper design and maintenance of vehicles.
The inability of farming and transport personnel to understand the
problems created during transportation (the mixing of different groups of animals, inadequate loading so that livestock are thrown about by the vehicle's movement and hustling and bullying when loading and unloading) create adverse effects which are shown in the dressed carcass.

 **Diseases Encountered On Ante-mortem Inspection**

* **Actinomycosis**

*(Actinomyces bovis)*

* The principal lesions of this disease affect the head with the symptoms chiefly affecting the **jaw bone**.
* There is usually swelling of the lower mandible due to the loosening of the teeth the animal often has difficulty in chewing and swallowing.
* There is often a discharge of excessive saliva from the mouth and the breath is offensive.
* **Anthrax**

*(Bacillus anthracis)*

* This notifiable disease, which affect all the food animals, is so rapidly fatal that animals are often found dead, distended with gas and with a bloody discharge emanating from the body's natural orifices.
* There are symptoms of fever; with increased respiration, staggering gait, disorientation and paralysis.
* Immediate notification of any suspected case of anthrax should he made to the divisional veterinary officer of the Ministry of Agriculture, Fisheries and Food.
* **Blackleg.'Blackquarter'Quarter III**

*(Clostridium chauvoei)*

* This disease attacks cattle and sheep, mostly the young <6 months to 2 years and well-nourished of the species being affected.
* A swelling, which is irregular in shape, appears around the shoulders or hindquarters: this gradually increases in size, feeling hot and painful, and in some cases causes lameness.
* The skin is darkened and, if pressed, it makes a crackling sound due to the gaseous accumulation beneath the skin.
* **Emaciation**
* Emaciation may be seen in all the food animal prior to slaughter.
* Symptoms are a lack of muscle development, a very thin back with the ridge of the spinal column visible; and lack of covering over the ribs cage, the ribs being clearly visible.
* Emaciation may be indicative of some other disease condition, such as Johne's disease; so emaciated animals always warrant a detailed postmortem examination to try to find the reason for the emaciated condition.
* **Foot and Mouth Disease**
* (Picornaviridae, genus *Aphthovirus*).
* This is a highly infectious, notifiable disease of cattle, sheep and pigs.
* The first symptoms are an acute lameness, followed by an excessive discharge of saliva from the mouth which produces a smacking noise of the lips.
* The animal is dull and listless and is continually shaking its feet.
* Vesicles appear on the tongue, Lips and palate and result in a loss of appetite.
* There are also vesicles between the claws of the feet and sometimes the teats are affected
* The vesicles eventually burst leaving raw patches
* **Fractures and Injuries**
* This is the most frequent reason for the emergency slaughter of many animals.
* Fractures of the limbs and pelvis 'split aitches> are the most common encountered, with the animal unable to walk or even rise. If walking is possible, the injured limb will be seen to be kept off the ground.
* Split aitches very often occurs while the animal is being unloaded from a cattle transporter, and is due to difficulties in negotiating the steep slope of ramps.
* The hind limb of the animal will be seen to splay out at right angles to the line of the back bone with virtually no natural movement of the hind limbs whatsoever.
* Other injuries may be caused by trampling, goring and crushing during transit.
* In order to reduce the effect of bruising on the carcase, it is imperative that any animal which is injured in any way is slaughtered us quickly as possible on its arrival at the slaughterhouse.
* **Gid / Sturdy**
* This condition which is found in sheep is caused by *Multiceps multiceps*/ the cystic stage of the parasite *Taenia multiceps* which is a tapeworm of the dog.
* The animal is dull, standing a pan from the rest of the flock, with its head held high.
* It gradually becomes dizzy, turning round and round in circles.
* **Hypomagnesaemia/Grass Staggers**
* Hypomagnesaemia is a condition which is caused by too low a level of magnesium in the body.
* High-yielding cows are more often affected.
* The condition is mainly seen in the spring and autumn, and particularly after a period of cold weather since sudden changes of temperature may influence blood levels.
* The affected animal shows considerable nervous symptoms; muscular spasms, sweating, excitement, and grinding of the teeth are all common.
* Eventually the animal's limbs lock, causing paralysis which is followed by coma and death.
* **Jaundice**
* The yellow discoloration which is the principal symptom of this disease, may best be seen in the interior or the ears and in the eyes.
* The animal is dull with an irregular appetite and a rough coat.
* The process of rumination interfered with (i.e. the cud-chewing is delayed) and there if often an abnormal and objectionable odour from the mouth.
* **Johne's Disease**

*(Mycobacterium johnei)*

* Thin disease chiefly affects cattle but can also affect sheep, being charaderised by persistence (pipe-stem) diarrhoea and wasting of the muscles, particularly those of the hindquarters.
* However, the appetite in not greatly affected.
* The faeces, which have a very offensive odour, are foamy in appearance due to the presence of gas bubbles.
* Infected animals can pass the disease on to healthy stock.
* **Joint ilI/Navel iII/ Umbilical Pyaemia;**

*Escherichia coli, Streptococci or staphylococcus.*

This disease chiefly affects **calves**, although lambs can also be affected:

* infection is caused by the entrance of bacteria at the umbilicus.
* The affected animal is dull, off its food, and the naval area is found to be hard and swollen.
* In later stages the animal may show signs of fever, becoming weak and unable to stand.
* The joints, particularly the stifle joint, are swollen and very painful lo the touch.
* **Mastitis**

*(Streptococcus agalactiae or Corynebacterium pyogens)*

* Chiefly seen in cows, particularly during the summer months when it is known as 'Summer Mastitis.
* Initially there is swelling in one quarter, this quarter being red, hard and painful.
* The animal exhibits symptoms of fever (elevation of temperature) with an increase in respiration and loss of appetite.
* The udder may be so distended as to cause the animal difficulty in walking
* **Milk Fever**
* This disease, which affects **cows** shortly after calving, is characterized by staggering of the animal, recumbence, and loss of appetite with often the head being turned in a characteristic position.
* There are fits of temporary madness, with rolling of the eyes and a cessation of defecation and urination.
* **Poisoning**
* Several plants cause poisoning among cattle including yew, acorn and laurel.
* There is either violent sickness or profuse diarrhea; in many cases there are both.
* Often the animal, which is in extreme pain around the loin, dies quickly but, where death does not supervene, there is loss of flesh or appetite.
* Poisoning can also be caused by chemicals. Lead poisoning may occur as a result of an animal licking paint which has a lead base.
* This is very common in calves which have a natural tendency to suck various objects.
* The affected animal will have considerable pain, often demonstrating an arched back and impaired vision.

**Red water fever**

(Babesia bovis) (Ixodes ricinus)

* This often, fatal disease of cattle derives its name from the fact that the urine takes a red discoloration.
* This is due to the breakdown of the hemoglobin in the blood.
* The first symptoms are diarrhea followed by fever, loss of appetite and interruption in rumination.
* The urine, which is red as opposed to the normal yellow colour, may become purple, dark brown or even black
* **Ringworm**

Dermatophytes ( *Trichophyton and Microsporum spp*.)

* This condition, which is highly contagious, also affects man.
* It is chiefly found in calves.
* The hair falls out in large patches, leaving behind a hard skin, it is mostly found in the arenas around the face, neck, shoulders and tail.
* **Septicemia**
* In this condition, there is an increase in temperature 41-42 C.
* The animal refuses feed, and shows a quickened respiration, weak pulse and prostration.
* **Sheep Scab/Mange**
* Psoroptes mites (P.mange).*Psoroptes equi (5 spp.)*
* This notifiable disease is caused by mites or insects which burrow into the skin forming scabs.
* It affects all the domestic animals, including **man.**
* The symptoms are restlessness and rubbing of the affected parts, sometimes there is an exudate which forms into a scab.
* **Warble Fly**

*(hypoderma bovis or Hypoderma lineatum)*

* These appear as small lumps or nodules which are caused by the presence of the warble fly larvae.
* These are found along and to each side' of the line of the vertebrae and count as a **notifiable** disease from March to July each year.
* They extend from behind the shoulders to the pelvis end are more visible in the live animal during the months from February to June, when the larvae are pupating.
* The hair around the swelling is often matted and sticky due to the exuded fluid from the opening the larva makes in the skin.



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