



College of Veterinary Medicine
Department of Internal Medicine & Preventive



Sweating sickness (tick toxicosis)

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Lecture 11



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Etiology

- the cause of sweating sickness in cattle has not been identified, but it behaves as though it were an epitheliotropic or dermatrophic toxin produced by the salivary glands of certain strains of the hard tick

Hyalomma truncatum.

- Both male and female ticks of the strains can produce the toxin, but not all strains of *H. truncatum* have the ability to do so.



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Epidemiology

- Attempts to transmit the disease between animals by direct contact and by injections of tissue or blood are unsuccessful.
- The disease occurs in Central, East, and South Africa; Sri Lanka; and probably southern India.
- Younger animals up to 1.5 years of age are affected as a rule, but rare cases occur in adults.



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- Sheep, pigs, and goats are susceptible, although the disease does not naturally occur in them, and a similar disease has been reported in a dog in Brazil infested with the soft tick *Ornithodoros brasiliensis*, popularly known as the mouro tick.
- Sweating sickness occurs at all times of the year but is most prevalent during the wet season when ticks are more plentiful.
- The morbidity rate varies with the size of the tick population but is usually 10% to 30%. The case-fatality rate is up to 30%.



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Pathogenesis

- The clinical signs begin 4 to 7 days after the ticks attach.
- if the ticks are removed very early, there is no clinical response.
- With longer exposure of more than 5 days, the subject develops the full-blown clinical disease and may die.



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Clinical findings

- 1-There is a sudden onset of fever up to 41° C (106° F).
- 2-anorexia, hyperemia of the mucosae, and hyperesthesia.
- 3-The animal is lethargic, depressed, and dehydrated.
- 4-arched back, and a rough coat.



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5-There is an extensive, moist dermatitis commencing in the axilla, groin, perineum, and the base of the ears, and it may extend to cover the entire body in bad cases. “Sweating” refers to this moist dermatitis.

6- patches of the skin and hair are rubbed off or can be pulled off to leave raw, red areas of subcutaneous tissue exposed.

7-Secondary bacterial infection and infestation with blowflies or screw-worm larvae are common sequelae.



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Diagnosis

Clinical pathology

- There is severe neutropenia and eosinopenia and a degenerative left shift.
- α -globulin and beta-globulin levels are raised.
- Urinalysis indicates the existence of nephrosis, but serum creatinine levels are normal.



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Necropsy findings: The lesions are essentially those seen clinically.

Treatment: Symptomatically, Nonsteroidal anti-inflammatory drugs (NSAIDs) and broad-spectrum antibiotic cover is a logical regimen.

CONTROL

Control is limited to control of the causative tick. No vaccine is available. Exposure to the strain of ticks for a period of about 72 hours confers a limited degree of immunity.