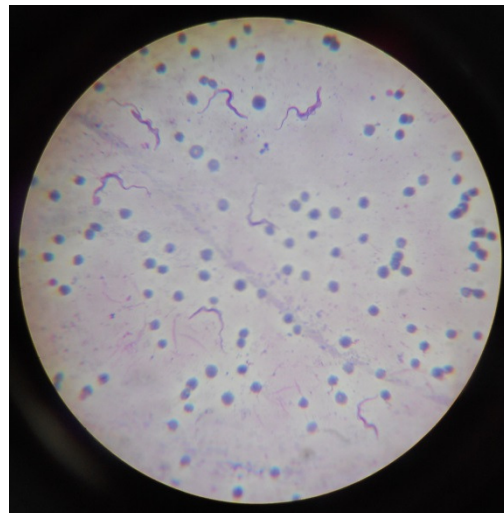


SURRA IN WORKING EQUIDS IN NORTHERN INDIA- A REVIEW OF 8 CASES



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Preview



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Background



- Equine fairs are the congregations of equine for trading purpose
- There are 70 equine fairs in India
 - More nos. of equine fairs are found in northern India
 - Equine ranges from 4000-18000/fair
- Last year FY 2012-13
 - Brooke India attended 45 fairs
 - 3175 cases were attended
 - Colic remains most prevalent followed by , accidental injury, lameness and protozoal diseases
- 74 protozoal cases were found
 - 50% were Surra cases



Cont.



Introduction



- *Trypanosoma evansi* is the causal agent of Surra
- It can infect most mammals, although horses and camels are the principal hosts (Mahmud et al 1980).
- A high percentage (12.74%) of horses were found suffering from *T evansi* infection (Laha and Sasmal, 2008)
- A Survey of Veterinary Practitioners showed, 45% of prevalence of Surra (B.R. Singh et al 2010) in India.
- Several haematophagous flies, including Tabanids and *Stomoxys*, acting as mechanical vectors.



Cont..



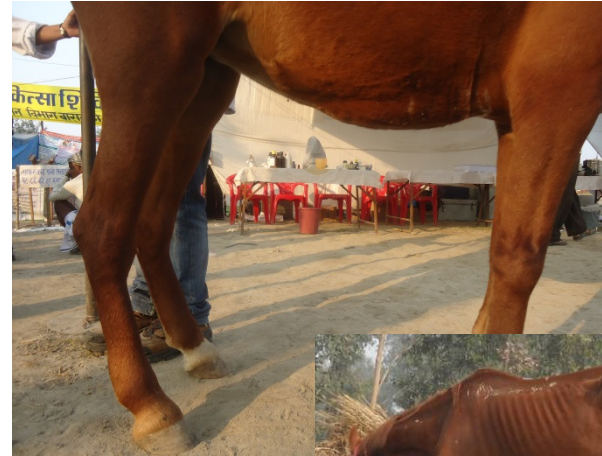
- Draught animals are prone to Surra (FAO)
- There is a direct correlation between incidence of surra and population of tabanid flies (Soodan *et al.* 1995)
- Buffaloes act as reservoir host



Sign and symptoms



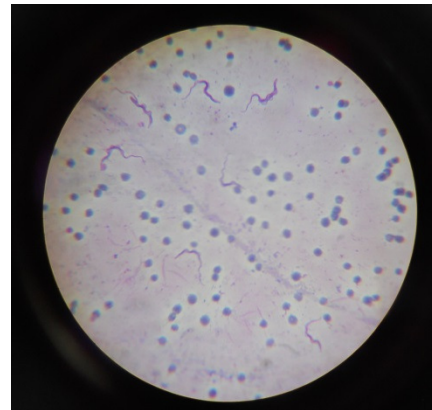
- Mild to moderate case
 - Irregular fever
 - Progressive weight loss
 - Anemia
 - Edema of dependent part and enlargement of the lymph nodes
 - Petechial hemorrhage
- Severe case
 - Neurological signs - Ataxia, head tilt, circling.
 - Gradually progressive paresis of the hindquarters.



Diagnosis



- Based on clinical signs and symptoms
- Field laboratory tests
 - Direct microscopy of blood
 - Wet blood films
 - Thin blood smears (Leishman's stain)
 - Estimation of haemoglobin (Sahli's method)



Results



- A total of 16 cases were suspected for Surra out of 130 cases
 - 8 equines were found +ve for Surra
 - 6 horses and 2 mules
- Mean haemoglobin was 6.0 g% (3.4-8 g%)
- Mean age of positive animals was 5 years (3-8 years)
- Clinical signs were fever, pale and anaemic mucous membranes
- All (8) of the Surra +ve animals were treated with quinapyramine sulphate
- All cases recovered
 - no relapses were reported within three months.

Discussion



- All the cases were recorded post-monsoon season which concurs with reported seasonal patterns
- Over-crowding during travel may heighten stress making equids more susceptible to Surra
- Diagnosis of Surra at field is challenging
- No other reports detailing age and sex as risk factors for Surra have been found
- Direct microscopy limited value in diagnosis of sub-acute or chronic cases
- 34.6% of the animals studied in Kerala, India, were found to be carriers for *T. evansi* , but the blood smear examination failed to detect 150 samples (Nair, A.S. 2011)

Conclusion



- Presenting signs of pale, anaemic mucous membranes in conjunction with field-based clinical pathology tests can contribute to identifying acute cases of *T.evansi* in equids
- There is need for further studies to investigate ways to improve sensitivity of field lab tests
- Early diagnosis and treatment is the most important factor for saving life.

Acknowledgement



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Thanks