

CASE REPORT ON ANAPLASMOSIS IN DAIRY CATTLE

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ABSTRACT

Anaplasmosis is a tick borne disease of ruminants caused by intracellular bacteria *Anaplasma phagocytophilum* that infect the red blood cells causing fever and anemia. We are presenting a case of 6 year old cow (Holstein fresian) having milk production 30L/Day before showing sign and symptoms. On observation she was showing temperature fluctuation ,dull depress ,lethargic,off feed,dehydration , low milk production and pale mucosal membrane was observed. On blood smear formation we observed intracellular bodies suspected *Anaplasma centrele*. On PCR performation the test was positive. Case was treated with oxytetracycline , imidocarb.

Keywords: Cattle, *Anaplasma* , anemia, temperature, oxytetracycline

Introduction:

Anaplasmosis is a bacterial disease that affect mostly cattle as here we observe. A 6 year old Holstein fresian cow was presented with pale mucous membrane, lethargic ,anorexic, off feed, decreased milk production with temperature 105F. On observation she was showing temperature fluctuation, dull depression, lethargic,off feed,dehydration , low milk production and pale mucosal membrane was observed. On blood smear formation we observed intracellular bodies suspected *Anaplasma centrele*.

Case Presentation

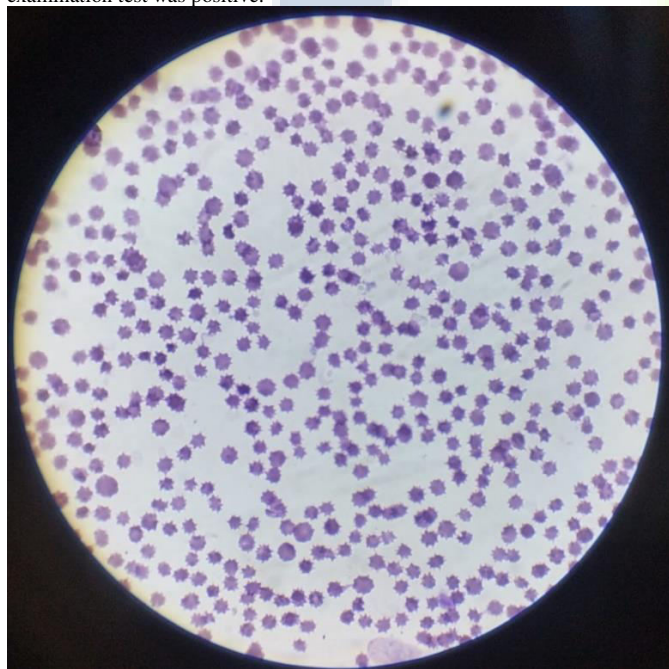
A 6-year-old Holstein fresian cow was presented with pale mucous membrane, lethargic, anorexic, off feed, decreased milk production with temperature 105F.

Physical Examination

Temperature 105F, dehydration,respiration rate 45/minute, pulse rate 75/minute, pale mucosal membrane off feed.

Lab Report

On microscopic examination(blood smear formation test) a round body 0.3 - 0.4µm in center of cell observed suspected *Anaplasma centrele*. on PCR examination test was positive.



Projecting bodies are observed on microscope by blood smear formation

Treatment

- Oxytetracycline 20mg/kg
- Inj.otc 15ml I/M for 2 days
- Imidocarb 3mg/kg
- Inj.imi 12ml I/M Single shot

Discussion

Anaplasmosis is a bacterial disease affecting RBCs and a result anemia develop in animal. Animal affected by this bacteria especially lactating animal decreased its milk production and animal treated by oxytetracycline , imidocarb and recovery period is about 5 – 10 days.

Conclusion

Anaplasma affects mostly cattle with signs anemia,fever, dull depress and pale mucous membrane. This case was recovered by oxytetracycline and imidocarb. These drugs were effective against this case.

References

- [1] Merck veterinary manual 11th edition
- [2] Text book of veterinary medicine by Douglas Charles Blood
- [3] <https://www.google.com/url?q=https://www.sciencedirect.com/topics/agricultural-and-biological-sciences/anaplasma-marginalis&sa=U&ved=2ahUKEwjx8LjcpJ2DAxUWhP0HHacRDn0QFn0ECBUAQ&usq=A0vVaw3gHo4WFPE9KvbvQTjHxhtml>
- [4] http://www.cdc.gov/anaplasmosis/healthcare-providers/treatment.html%26sa%3DU%26ved%3D2ahUKEWj07dfKpZ2DAxThv0HHfCWDmsQFnoECBsQAQ%26usg%3DA0vVaw2a8qDw4uUt_QPHYCgyPeV&spell=1&sa=X&ved=2ahUKEwiyZDPpZ2DAxV7gv0HHd26BhEQBSgAegQIDRAC&biw=384&bih=724&dpr=1.88
- [5] <https://www.alberta.ca/anaplasmosis-overview#:~:text=Anaplasmosis%20is%20a%20form%20of,causes%20disease%20primarily%20in%20cattle>
- [6] <https://www.google.com/url?q=https://www.health.state.mn.us/diseases/anaplasmosis/basics.html%23:-:text%3DMuscle%2520aches,the%2520aging%2520or%2520immune%2520dcomproised.&sa=U&ved=2ahUKEwji-Kqsp2DAxWngP0HHYXOA0kQFnoECBMQBQ&usg=A0vVaw21AV2RDIPtOXJASmAM5kK7>
- [7] <https://tvmdl.tamu.edu/2020/10/19/anaplasmosis-in-cattle/#:~:text=Anaplasma%20marginale%20is%20the%20most,heavy%20tick%20and%20fly%20seasons>
- [8] Capocolli, Dawn J., Blackwell's Five-Minute Veterinary Consult: Ruminant; Scott R.R. Haskell, DVM, editor. 2008 pgs. 50-51.