

## **THE APPRECIATION OF ANTIBACTERIAL ACTIVITY OF ENROFLOXACIN AND CEFTIOFUR BY DETERMINING THE FIBRINOGEN AMOUNT FOR THE CLINICAL TESTING IN SHEEP**

**Mărculescu Anca, Gh. Răpunțean, R. Chereji, N.A. Oros, M. Cernea**

Universitatea de Științe Agricole și Medicină Veterinară, Str. Mănăștur nr. 3-5, Cluj-Napoca

**Keywords:** fibrinogen; salmonellosis; sheep

### **SUMMARY**

Many times; the combination of antibiotics is proved to be a better alternative in therapy; especially when the associated antibiotics are synergic. In this study; two bactericidal antibiotics – enrofloxacin and ceftiofur – were clinically tested in young sheep diagnosed with salmonellosis; by interpreting the value of fibrinogen; an acute phase reactant; before the therapy; and also in day 1;3; and 7 of treatment; in the groups treated both with a combination of antibiotics and also with an antibiotic alone.

The values of the fibrinogen were two times higher; at the beginning of the therapy; in diseased sheep than the values of the control group; after a day of treatment; the fibrinogen increased in ENR group; meanwhile in ENR+EFT group started to decrease; in the day 3 of therapy; the fibrinogen increased more in ENR group; but for ENR+EFT group it was registered the grew less and less in comparison with day 1; the day 7 present the fibrinogen in ENR group in a pronounced decreasing than the day 3 ; the high value of the fibrinogen in ENR group in comparison with the decreasing of the fibrinogen values in ENR+EFT group determined a statistically distinct significant difference between the treated groups.

Analyzing these data; it can be considered that enrofloxacin combined with ceftiofur was more efficient; starting with day 3; in comparison with enrofloxacin; that had better results after 7 days of treatment.

### **BIBLIOGRAPHY**

1. CAMPBELL A.; M. OLDHAM; A. BECARIA; S.C. BONDY; D. MEACHER; C. SIOUTAS; C. MISRA; L.B. MENDEZ; M. KLEINMAN; 2005; Particulate matter in pollutes air may increase biomarkers of inflammation in mouse brain; *Neurotoxicology*; 26 (1): 133-40;
2. DEVERAJ S; G. O'KEEFE; I. JIALAI; 2005; Defining the proinflammatory phenotype using high sensitive C-reactive protein levels as the biomarker; *J Clin Endocrinol Metab*; 90 (8): 4549-54;
3. RICHARD M.; M.D. FOGOROS; 2003; C-reactive protein and fibrinogen; *Heart Disease*; 3370;
4. GRUYS E.; M.J.M. TOUSSAINT; T.A. NIEWOLD; S.J. KOOPMANS; 2005; Acute phase reaction and acute phase proteins; *J. Zhejiang Univ. Sci. B.*; 6/11: 1045-1056;
5. LARSSON E.; E.H. HARRIS; J.C. LORENTZEN; A. LARSSON; B. MANSSON; L. KLARESKOG; T. SAXNE; 2002; Serum concentrations of cartilage oligomeric matrix protein; fibrinogen and hyaluronan distinguish inflammation and cartilage destruction in experimental arthritis in rats; *Rheumatology* 41: 996-1000;
6. MANTEI U.; C.S. ROBERT; PATRICIA C. GICISA; 1984; Acute local inflammation alters synthesis; distribution and catabolism of the third component of complement (C3) in rabbits; *J.Clin.Invest.*;74: 424-433;

7. ROMETTE J.; J. DI CONSTANZO-DUFETEL; M. CHARREL; 1986; Inflammatory syndrome and changes in plasma proteins; *Pathol. Biol. (Paris)* 34 (9): 1006-12;