Marble Spleen Disease (MSD) : an outbreak in game pheasants (*Phasianus colchicus*)

anatomo-pathological and histo-pathological findings

S.Gavaudan; S.Fiorelli; C.Bartolini; P.Mancini; E.Manuali; F.Savelli*; F.Barchiesi**; M. Delogu**.

Istituto Zooprofilattico Sperimentale Umbria e Marche, Perugia (Italy)

*Hystrix s.r.l., Fano (Italy).

**Dip. Sanità Pubblica Veterinaria, Università di Bologna, Bologna (Italy).

CONCLUSIONS

INTRODUCTION

Marble Spleen Disease (MSD) is one of the foremost virosis (aviadenovirus II) of pheasants. Actually are not known outbreaks in wild animals, while it is a typical disease in 3-6 months old farmed pheasants. Anatomo-pathologic and Histo-pathological findings are described in order to make easy the laboratory diagnosis and the control in the farmed flock.

In march 2004, six events of mortality in wild pheasants with anatomo-pathological lesions referable to MSD, have been submitted to the laboratory.

RESULTS

Light and Electron microscopy and Agar-Gel Immuno-diffusion Tests (AGID) are performed and confirms the diagnostic suspect;

Typical lesions have been observed at different stages of the pathology:

1- young female: hepato-splenomegalia in good body score rate animal;
2- spleen: Necrosis of spleen follicles with border horse-shoe lymphocytes chromatin (nuclear Inclusions Cowdry A Type);
3- liver: interstitial hepatitis with large and confluent zones of coagulative necrosis and eosinophils infiltration;
4- pancreas: pancreatitis and necrosis;
5- lung: iperaemia and coagulative necrosis of respiratory epithelium with aedema and nucleated blood erythrocytes in the lumen;
6- Duodenum: lymphatic iperplasia and migrating lymphocites in the lamina propria with necrotic focus.

CONCLUSIONS

Micro and macroscopic aspects of the lesions must be comforted by the Agar Gel Immuno-Diffusion test, performed in direct and indirect way to detect antigens or antibody, and electron microscopy to detect the virus in the acute phase of the disease.

Since the spread of the disease in wildlife population is not known the affected subject probably belonged to a single group of young animals launched for repopulation proposals. A correct identification and management of the disease at farm level is fundamental to avoid the virus spread in wild animals and to defended the MSD disease-free farms.

References:
