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A. Seregi – Cs. Jakab – F. Manczur:

DIAGNOSTICS AND SURGICAL TREATMENT OF UNILATERAL HYPERADRENOCORTICISM IN DOG. CASE REPORT

In the present study the authors describe the surgical treatment of unilateral hyperadrenocorticism, applied by them, in dogs diagnosed and treated for the above mentioned disease during the past two years in the FeliCaVet veterinary practice. They summarize the pathology of the proliferative lesions of the adrenal gland (adenoma, carcinoma, nodular hyperplasia) and postoperative analysis of the biopsies. The adrenalectomy was carried out from paracostal exploration. In one case they detected postoperative subcutan abscess. The histopathological result of the biopsies were soliter cortical adenoma in all case. During the immunohistochemical analysis the neoplastic cells of the cortical adenoma of adrenal gland were negative for pancytokeratin, synaptophysin, chromogranin-A, S-100 and claudin-5. The proliferation index of adenomas, based on Ki-67 antigen was 0.5-3.4%. The endothelial cells of the deformed sinus in the adenomas showed intense membrane positivity for claudin-5 tight junction protein.

J. Gál – E. A. Palade – G. Majoros – K. Landauer – I. Pásztor:

FIRST DETECTION OF CRYPTOSPORIDIOSIS IN LEOPARD GECKO IN HUNGARY (*EUBLEPHARIS MACULARIUS*)

The authors describe for the first time cryptosporidiosis from a leopard gecko in Hungary, diagnosed in a gecko imported into the country. In addition to

cachexy, the diseased animal was anemic. Upon histological examination of the small intestinal wall the various developmental stages could be located around the endothelium cells, as well as the saliva covering the mucous membrane, both with haematoxylin-eosin and PAS staining. Electronmicroscopy revealed the developmental stages among the microvilluses of the endothelium cells. The results of the flotation of intestinal contents were negative, but the size and localization of the developmental stages in the scrape sample originating from the intestinal mucous membrane renders a *Cryptosporidium saurophilum* infection probable.

E. Varga – R. Kiss – Á. Bali Papp:

IN VITRO MATURATION OF PORCINE, BOVINE AND EQUINE OOCYTES

Most of the applied methods in biotechnology are based on *in vitro* produced embryos, which suppose an existence of successful *in vitro* embryo production (IVP) system. In vitro embryo production contains 4 main steps: collection and maturation of oocytes (IVM), in vitro capacitation of spermatozoa, in vitro fertilization of oocytes (IVF) and embryo cultivation (IVC).

The authors summarize the knowledge of oocyte maturation, present the results and the developmental possibilities of cow, pig and horse oocytes in vitro maturation system.

L. Békési:

ABOUT THE UNCOMMON BEE LOSSES. LITERATURE REVIEW

Pollination activity of honeybees carries vital importance for both the sustainable environment and agricultural productivity throughout the world. There are extensive concerns about the future of the honeybee (*Apis mellifera*), mostly because by recent, sudden colony losses across the continental U.S., and several European countries. Since there is public interest in the issue, there is an ongoing, recurring media coverage. The U.S.

Congress scheduled a special public hearing on the issue (1), and the New York Times and the Science Magazine also discuss the phenomenon regularly. Alarmists have begun to call it „bee AIDS” and are predicting the extinction of humankind, as a consequence. Although causes of the symptoms called „colony collapse disorder” are not clear yet, the author summarizes the conclusions that can be drawn from the preliminary analyses.

A. E. Palade – Z. Demeter – M. Dobos-Kovács – M. Rusvai – M. Mándoki:

DETECTION OF INFECTIOUS BRONCHITIS VIRUS, AVIAN NEPHRITIS VIRUS AND INFECTIOUS BURSAL DISEASE VIRUS BY MULTIPLEX RT-PCR BASED DIAGNOSTIC METHOD

Nephroso-nephritis and uricosis are known to cause massive production loss in the chicken industry. Beside the various causes of non infective nature leading to regressive renal changes, there are viral infections frequently related with regressive and inflammatory kidney lesions in birds. The best known causative agents are infectious bronchitis virus (IBV) and avian nephritis virus (ANV), but renal changes were also reported in case of infectious bursal disease virus (IBDV) infections. The authors present a diagnostic method based on multiplex polymerase chain reaction (mPCR) following reverse transcription, to identify and hence discriminate the infections caused by the three pathogens in one reaction, and so obtaining a faster, cheaper, but still reliable result. The primer pairs used amplify gel separable products from highly conserved region of the nucleocapsid (N) protein for IBV, viral protein 2 (VP2) for IBDV and glycoprotein 1 (GP1) protein for ANV, respectively. The mPCR products were visualized by gel electrophoresis and were represented by fragments of 743 base pairs (bp) for IBVD, 608 bp for ANV and 402 bp for IBV. When testing the sensitivity of the newly developed diagnostic test by using a serially diluted positive control with known concentration of genetic material, the multiplex PCR could detect 8.45×10^{-2} µg for IBDV, 8.87×10^{-3} µg for IBV, and 8.92×10^{-3} µg for ANV, respectively,

indicating that it is a rapid and sensitive diagnostic method, saving time and effort without compromising the diagnostic purpose.