

Republic of Korea

Phone: +82+53+950+5975, Fax: +82+53+950+5955,

E-mail: jeongks@mail.knu.ac.kr

P#49

Persistent Activation of p38 MAPK in CCl₄-Induced Rat Liver Cirrhosis

Il-Hwa Hong, Da-Hee Jeong, Sun-Hee Do, Hai-Jie Yang, Dong-Wei Yuan, Mi-Ran Ki, Sang-Joon Park, Tae-Hwan Kim and Kyu-Shik Jeong

Department of Veterinary Pathology, College of Veterinary Medicine, Kyungpook National University, Daegu 702-701, Republic of Korea

The hepatic stellate cell (HSC) is the primary cell-type in the liver responsible for excess collagen synthesis during hepatic fibrosis. Previous our studies, however, has demonstrated that the number of HSC decreased on stage of liver cirrhosis rather than stage of liver fibrosis. We therefore supposed that there is another pathway of collagen synthesis on the stage of liver cirrhosis and investigated relationship between MAPK signaling cascade, one of intracellular signaling pathway which is stimulated in activated HSCs, and CCl₄-induced rat liver cirrhosis. The maximal activation of phosphorylated c-Jun-NH₂-terminal (p-JNK) and phosphorylated extracellular regulated kinase (p-ERK) was detected weeks 12, stage of liver fibrosis and mild cirrhosis, after treatment and decreased weeks 14, stage of severe cirrhotic condition Phosphorylated p38 MAPK (p-p38), however, was detected since weeks 8 and persistently increased until

weeks 14. p-JNK was colocalized with α -SMA and p-ERK was colocalized with ED1. p-p38 was localized in fibrous septa and seemed like that colocalized with p-ERK from week 8 to 12, however, p-p38 was increased at weeks 14 conversely. p38 MAPK was known to inhibits the proliferation rate of HSCs and regulate α 1(I) collagen gene expression and increase α 1(I) collagen mRNA stability and believed p38 MAPK to be may inhibit proliferation through an antagonistic effect on the cell cycle proliferation associated protein cyclin D1. These results show that p38 may be critical role to inhibit the proliferation rate of producer cells of extracellular matrix on liver cirrhosis and provide the first *in vivo* demonstration of liver cell-type specific and time-course activation of MAP kinase cascade during the process of liver fibrosis and cirrhosis.

***Corresponding Author :Professor, Kyu Shik Jeong, D.V.M., Ph.D.,**

Department of Pathology, College of Veterinary Medicine, Kyungpook National University, 702-701, #1370, Sangyeok-dong, Buk-ku, Daegu City, Republic of Korea

Phone: +82+53+950+5975, Fax: +82+53+950+5955, E-mail jeongks@mail.knu.ac.kr

P#50

Immunohistochemical Characterization of Canine Haemangiopericytoma Occurs on The Forelimb.

Il-Hwa Hong, Won-Il Jeong, Young-Suk Son,

Sun-Hee Do, Da-Hee Jeong, Mi-Ran Ki and Kyu-Shik Jeong
Department of Veterinary Pathology, College of Veterinary Medicine, Kyungpook National University, Daegu 702-701, Republic of Korea

Haemangiopericytoma (HP) occurred on the antebrachium of 13-year-old dog HP is a soft tissue neoplasm found in human beings and dogs, which are thought to originate from the pericytes that surround small vessels. In dogs, however, there is controversy about the histogenesis of this tumor because the tumor cells have never been unequivocally proven to be pericyte in origin by histochemical and microscopical examination. Moreover, HP in the antebrachium is extremely rare in human beings and dogs. The immunohistochemical characteristics of HP were studied to identify the origin of HP. As a result, we obtained interesting data and a clue that pericyte may be origin cells.

*Corresponding Author : Professor, Kyu Shik Jeong, D.V.M., Ph.D.,
Department of Pathology. College of Veterinary Medicine. Kyungpook National University. 702-701. #1370, Sangyeok-dong, Buk-ku. Daegu City, Republic of Korea
Phone: +82+53+950+5975, Fax: +82+53+950+5955.
E-mail: jeongks@mail.knu.ac.kr

P#51

A Case of Canine Leiomyosarcoma in Pyloric Lesion

Il-Hwa Hong, Da-Hee Jeong, Sun-Hee Do, Hai-Jie Yang, Dong-Wei Yuan, Jae-Yong

Chung, Mi-Ran Ki and Kyu-Shik Jeong
Department of Veterinary Pathology, College of Veterinary Medicine, Kyungpook National University, Daegu 702-701, Republic of Korea

Leiomyosarcoma (LMS) is a rare neoplasm in stomach We describe the gross, histopathological and immunohistochemical features of a case of pyloric LMS in a dog. A 7-year old male Shi-tzu was confirmed to have hypertrophic pyloric stenosis by positive contrast gastrography and ultrasonography, but during pyloroplasty, some mass was observed at pyloric lesion and executed biopsy and applicated histological diagnosis. That mass had features of LMS in H&E and the tumor cells had positive reactivity to

α -SMA, vimentin and desmin except S-100. Moreover, interesting immunohistopathological features of vimentin and desmin depending on degree of immurity and malignancy of tumor cells were showed at one mass.

*Corresponding Author : Professor, Kyu Shik Jeong, D.V.M., Ph.D.,
Department of Pathology. College of Veterinary Medicine. Kyungpook National University. 702-701. #1370, Sangyeok-dong, Buk-ku. Daegu City, Republic of Korea
Phone +82+53+950+5975. Fax -82-53-950+5955.
E-mail jeongks@mail.knu.ac.kr

P#52

Canine Malignant Melanoma Metastasis to The Mammary Glands

Il-Hwa Hong, Sun-Hee Do, Da-Hee Jeong, Hai-Jie Yang, Dong-Wei Yuan, Hyun Yi,