usual contour of nuclei and enclosed cytoplasmic materials. Pockets were made by evagination from the nuclei that partially surround bits of cytoplasm. The membranes of the pockets were of relatively uniform structure and consisted of 2 sheet of typical double-layered nuclear envelope. This envelope was composed of two inner nuclear membranes and two outer membranes. The entire structure of pocket membrane was about 61-72nm wide. The LNP positive percent in cattle according to the separated group is different as follows. Leukemic group was the highest to 70% among 4 groups. The LNP positive was 23%, 43%, and 6% in aleukemic, suspect, and BLV seronegative groups, respectively.

The membranes of LNP were relatively uniform structure composed of 4-layers. More LNPs were detected in the BLV seropositive cows compared with seronegative cows, further more in leukemic cows than nonleukemic cows among BLV-seropositive cows. Consequently, the prevalence of LNP considered as one of the positive markers of BLV infection.

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P#8

Electronmicroscopic Study of Bovine Leukemia Virus of Cattle

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Many studies have been performed on the bovine leukemia virus (BLV) since bovine leukosis had been reported in 1968 in Korea. However, there was no report on the ultrastructural examination of BLV. An attempt to detect C-type viral particles in the cultured peripheral blood lymphocytes of Holstein-Friesian dairy cattle, was made to determine whether in vitro viral expression might be used as a reliable method to identify the cow which is likely to transmit BLV

In transmissible electronmicroscopic (TEM) examination, the virus particles were found predominantly outside of the lymphocytes even though a few particles were also observed within the membrane bound cytoplasmic vacuoles. All of them were C-type particles consisting of a central, electron-dense core separated by a clear area from a limiting envelope with a unit membrane structure. Virus particles were easily detected in the lymphocyte which was cultured with medium supplemented with either T-lymphocyte mitogen (conconavalin A) or B-lymphocyte mitogen (lipopolysaccharide). Identical viral particles, although fewer, were also consistently present in the lymphocytes cultured with medium which was containing foetal bovine serum (FBS) only and which was containing neither FBS or mitogen. By contrast, no virus particle was detected in extensive examination of lymphocytes before

culture. This study was the first successful trial to detect the BLV particles by TEM in cows in Korea.

In conclusion, the BLV cultivation and detection methods established in this study could be used as a tool to identify and eliminate the cattle which can transmit the BLV.

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P#9

Porcine Juvenile Pustular Psoriasiform Dermatitis in Korea

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Porcine juvenile pustular psoriasiform dermatitis (PJPPD) is a disease of young pigs and characterized by nonpruritic round eruption of skin. The cause of this disease is yet undetermined but is presumed to be genetic predisposition. There may be few opportunities for veterinarian to detect this disease compared with actual situation in field because these lesions resolve spontaneously in two months. The authors detected spontaneous PJPPD case and performed clinical and pathological studies on three pigs from one farm.

The specific skin lesions were observed in the forty-day old pigs of mixed breed, which were produced by the sows received semen from the same boar, restrictively. However, there was no skin lesion of pigs in suckling or fattening periods. Grossly, lesions were commonly found on the ventral abdominal part as a papule and were spreaded to the skin of whole body. With the spreading of lesions centrifugally, skin was showed as a umbilicated plaques or mosaic pattern with a few pustules or crusts. Microscopically, the most prominent lesion was the psoriasiform hyperplasia with acanthosis, down growth of rete ridges, exocytosis of eosinophils and neutrophils, ballooning degeneration of superficial epidermis, and koilocytic degeneration of keratinocytes Additionally, there were moderate dermal edema and severe mixed cellular infiltration, especially eosinophils. No infectious agent which can cause the skin lesion, was detected or cultured, and no lesion caused by infectious agents was also observed, pathologically.

With pathological results of this study, it is supposed that pathogenesis or severity of PJPPD may be related to the infiltration of eosinophil or hypersensitivity.

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