

## 10. 꽃사슴의 *Clostridium perfringens* A형에 의한 장독혈증 발생 보고

이청산 · 한성태 · 광학구 · 박경재 · 현공율 · 조우영 · 이종인 · 배유찬\*

충청북도축산위생연구소, 국립수의과학검역원\*

The case reports for *Clostridium perfringens* type A enterotoxemia in formosan deer have rarely been recorded. This paper describes a natural case of type A enterotoxemia in farmed formosan deer in Cheongwon gun. A dead, male 10-month-old formosan deer was submitted to Chungbuk Livestock and Veterinary Research Institute, March 24, 2001 and examined. That deer was fed with assorted grain feed, oak leaves, acorn and bean curd. Grossly there was no visible external change. Despite of the carcass being examined within 12 hours of death, there was a quite degree of postmortem decomposition. There was severe hemorrhage in the serosa of abomasum and small intestine. Much blood tinged and watery contents were contained in those organs. Also there were severe swelling of spleen, some red foci in hepatic parenchyma. Microscopically there were severe congestion and hemorrhage in mucosa, submucosa, muscular layer, and serosa of abomasum and small intestine. Also spleen and pancreas showed severe congestion and hemorrhage.

There were multifocal hemorrhage with hepatic necrosis in periportal area and focal mononuclear cell deposition in sinusoid. In bacterial culture for small intestine, *Clostridium perfringens* was isolated. By toxin typing for the strain, that had alphatoxin belonged to type A. In electronmicroscopy for feces, no virus particle was detected. Considering clinical signs, gross lesions, microscopic lesions, bacterial culture, and toxin typing of the isolate, this case was diagnosed as enterotoxemia by *Clostridium perfringens* type A.

## 11. Detection of *Mycobacterium* species in cattle at slaughter houses using ELISA and multiplex PCR

Yong-Hwan Kim · Ho-Myeong Na · Ba-Ra-Da Koh · Tae-Sun Kim  
Cho-Kyun Kim · Kyoung-Oh Cho\* · Nam-Yong Park\*

Gwangju Metropolitan Health and Environment Research Institute  
College of Veterinary Medicine, Chonnam National University\*

Tuberculosis, caused by *Mycobacterium* spp, induces chronic debilitating disease in all vertebrate. Tuberculosis is incurable and easily transmitted to the other animals, so that it is

very important disease for public health and economy. Therefore, rapid and accurate diagnostic techniques are required to prevent tuberculosis. To evaluate the prevalence of *Mycobacterium* spp in cattle at slaughterhouses antibody detecting ELISA for bovine tuberculosis was developed and applied to 340 cows(247 Korean native cattle and 93 Holstein). Positive reaction for bovine tuberculosis by ELISA was detected in four cows only among the Korean native cattle population but not in the Holstein cattle one. To confirm ELISA results multiplex PCR with a primer set specific for *M bovis*, *M tuberculosis*, and *M avium* complex, respectively, was performed with 340 blood samples. Three cows among 4 positive cows by ELISA were diagnosed *M bovis* by multiplex PCR. From these results it is suspected that bovine tuberculosis is popular in Korean native cattle. It is recommended that the screen test for bovine tuberculosis at slaughterhouses or farms should be performed.

## 12. PCR기법을 이용한 젖소 결핵균 분리 조사

공신국 · 이건설 · 임종묵 · 양승민 · 이요안나 · 문순화

충청남도축산위생연구소 통합지소

2001년 충남지방에서 사육되는 젖소 중 PPD 피내반응검사법에서 양성을 나타낸 7개체의 가검물(혈청, 우유, 폐, 임파절)에 대해 PCR 기법을 이용한 젖소 결핵균 분리조사를 실시한 결과 아래와 같은 결과를 얻었다.

1. 폐 및 임파절 가검물 4개체 8종에 대한 PCR 실험결과 2두 2종에서 목적한 285bp의 증폭된 band를 확인할 수 있었다.
2. 혈청 및 우유 가검물 7두 11종에 대한 PCR 실험결과 모두에서 증폭되지 않았다.
3. 폐 및 임파절에 대한 실험결과는 PCR 기법을 이용한 젖소 결핵균 조사에 대한 가능성을 나타내 주고 있으며, 혈청 및 우유 가검물에 대한 실험결과는 DNA 추출의 한계가 원인으로 판단된다.

## 13. 효소면역흡착법을 이용한 대구지역의 돼지폐렴에 대한 항체분포조사 연구

조유정 · 서동균 · 송동준 · 이춘식 · 배영찬

대구광역시보건환경연구원

대구관내 양돈의 호흡기 질병에 대한 항체의 분포를 파악하여 효과적인 사양관리 지도에 활용하고 질병 예방의 기초자료로 삼고져 *M hyopneumoniae*, *P multocida*, *A pleuropneumoniae* 2형과