10. 꽃사슴의 Clostridium perfringens A형에 의한 장독혈증 발생 보고

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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

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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 diagnosised *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 겉소 결핵균 분리 조사

공신국 · 이건택 · 임종록 · 양승민 · 이요안나 · 문순화

충청남도축산위생연구소 통합지소

2001년 충남지방에서 사육되는 겉소 중 PPD 피내반응검사시에서 양성을 나타낸 7개체의 가금물 (혈청, 우유, 혀, 염파절)에 대해 PCR 기법을 이용한 겉소 결핵균 분리조사를 실시한 결과 아래와 같은 결과를 얻었다.
1. 혀 및 염파절 가검물 4개체, 8체에 대한 PCR 실험결과 2부 2종에서 목적한 285bp의 중폭된 band를 확인할 수 있었다.
2. 혈청 및 우유 가검물 7부 11체에 대한 PCR 실험결과 모두에서 중폭되지 않았다.
3. 혀 및 염파절에 대한 실험결과는 PCR 기법 이용한 겉소 결핵균 조사에 대한 가능성을 나타내 주고 있으며, 혈청 및 우유 가검물에 대한 실험결과는 DNA 추출의 한계가 분명으로 판단된다.

13. 호소면역흡착법을 이용한 대구지역의 돼지폐렴에 대한 항체분포조사 연구

조유정 · 서동균 · 송동준 · 이윤식 · 배영찬

대구광역시보건환경연구원

대구광역사 양돈의 환경관리를 위해 대구지역의 돼지폐렴에 대한 항체 분포를 파악하여 효과적인 사양관리 정책에 활용하기 위해 혼합배양의 기초자료로 고려한다.

*M mycopneumoniae, P multocida, A pleuropneumoniae* 2형과