The 10th Leading Seminar Report

Lecturer:	**Professor Micheal J.Day**
	(School of Veterinary Sciences, University of Bristol,
	United Kingdom)
Date:	August 5th, 2014, 15:30-17:30
Venue:	Lecture Hall
Number of participants:	50
Organaizer:	Nozomu Yokoyama
	(Laboratory of Veterinary Internal Medicine, DC2)

• Seminar Title

"The immunology of canine and feline inflammatory enteropathy"

• Abstract

There are three major types of chronic inflammatory enteropathy recognized in the dog and cat, which may share elements of pathology and pathogenesis. These are (1) idiopathic inflammatory bowel disease (IBD), (2) antibiotic-responsive diarrhoea (ARD; previously small intestinal bacterial overgrowth, SIBO), and (3) food-responsive diarrhoea (FRD; variably including dietary hypersensitivity or food allergy). Over the last decade there have been significant advances in understanding the basic pathogenesis of these disorders which should, in time, lead to the development of novel therapeutic approaches. This lecture will review some of the key advances that have been made in this field of research.

The increased understanding of the immunopathogenesis of small companion animal enteropathy has come about as a consequence of the explosion in knowledge in equivalent human and rodent model diseases. The mucosal immune system maintains a delicate balance between responsiveness and tolerance, and disruption of this balance is fundamental to initiating chronic intestinal inflammation. The major factors involved in the maintenance of intestinal homeostasis are the mucosal barrier (epithelium), an appropriately functioning mucosal immune system and the presence of endogenous microflora. There is increasing recognition that loss of tolerance and an aberrant immune response to components of the endogenous bacterial flora may underlie inflammatory enteropathy.


Dr.Day during lecture

● Questions and Answers (partially paraphased)

Q. I would like to ask about the relationship between the imbalance of the microbiota and the imbalance of the inflammatory cells in inflammatory bowel disease (IBD). Which is correct, the imbalance of inflammatory cells causes the imbalance of the microbiota or the imbalance of microbiota causes the imbalance of inflammatory cells?

A. I think what is certainly believe is that changing the balance of microbiota causes the imbalance of inflammatory cells. Firstly, The imbalance of the microbiota is created, then the microbiota can get through the leaky barrier. Finally, it changes the balance of the immune system of intestine.

Q. The cause of IBD is unknown, you said. Can I ask the hypothesis about critical cause of IBD?

A. The hypothesis is that the imbalance of microbiota and impaired the barrier function disturbs the immune system.

Q. Do you have some ideas what cause the imbalance of microbiota?

A. The imbalance of microbiota in people probably cause the life style, for example food, vaccine, exposure to environment and so on. The life style factors changes the gut flora.


Active discussion following the lecture

[From student organizer]

It was great pleasure to conduct the 10th leading seminar as a chairman. Fortunately, Professor Day kindly accepted our offer to come and give lectures, about the immunology of canine and feline inflammatory enteropathy.

Professor Day is one of the leading scientists in the field of canine and feline chronic enteropathy. His research interests cover experimental models of autoimmunity and a range of companion animal immune-mediated and infectious diseases. Therefore, I enjoyed learning more about canine and feline immunology and gastroenterology. After our discussion, I would like to use my experiences in my research.

Finally, I am most grateful that Professor Day came to our university and lecture our leading seminar. I also would express my gratitude to Leading Program coordinator Professor Horiuchi, Our laboratory Professor Takiguchi, Assistant Professor Ohta, Leading Office staff Maki, Hashimoto and laboratory members of veterinary internal medicine for helping to make the leading seminar successful.

Nozomu Yokoyama (Laboratory of Veterinary Internal Medicine, DC2)

Group photo with Dr.Day