



ANNOUNCEMENT

Interested members of the Ontario Veterinary College are invited to attend the Final Oral Examination for the Degree of Doctor of Veterinary Science of

Kimberly Hooi

of the Department of Clinical Studies
on, August 23, 2018,
at 9:00 am,
in Clinical Studies Rm 2106, OVC

Thesis Title: “Optimization of Imaging and Bronchoalveolar Lavage Techniques to Improve Diagnostic Yield of Feline Lower Respiratory Tract Samples.”

Examination Committee:

Dr. Fiona James (Chair)
Dr. Alice Defarges
Dr. Dorothee Bienzle
Dr. Tony Abrams-Ogg
Dr. Carol Reinero, Atlantic Veterinary College

Advisory Committee:

Dr. Alice Defarges (Advisor)
Dr. Dorothee Bienzle
Dr. Stephanie Nykamp
Dr. Scott J. Weese

CURRICULUM VITAE

Graduated from University of Sydney - Bachelor of Veterinary Science (1st class Honors) - 2011
1 year working in general practice
Internal Medicine and Emergency Internship at the Animal Referral Hospital, Sydney Australia -
1 year 2013
Rotating Internship at the OVC 2014-2015
Internal Medicine Residency/DVSc at the OVC 2015-2018

ABSTRACT

The process of investigation of feline lower respiratory tract disease can present multiple difficulties to the veterinary practitioner. Radiography is considered the first line imaging diagnostic test; however, in a proportion of cats no changes are identified. To characterize the etiology of lower respiratory tract clinical signs, sampling of the lower respiratory tract is required. Bronchoalveolar lavage (BAL) is a minimally invasive technique that is utilized to collect samples from the distal airways and alveoli. Simply, this technique involves instillation of sterile saline and re-aspiration to collect bronchoalveolar lavage fluid. In cats, two main techniques have been described but have not been compared. The purpose of this research project was to compare the two techniques for BAL in cats – bronchoscopic-BAL (B-BAL) and non-bronchoscopic-BAL (NB-BAL) and their effect on sample quality in healthy cats without respiratory tract disease and to describe a new technique for collecting BAL fluid (BALF) in cats – fluoroscopic guided BAL (F-BAL). B-BAL retrieved a higher proportion of BALF than NBBAL but there was no difference in the sample quality in regard to cellularity and cell preservation. Using fluoroscopy, it was determined that sampling of specific lung lobes was achievable and the BALF samples retrieved were of excellent cytologic quality, cellularity and cell preservation. Either B-BAL or NB-BAL can be utilized to collect BALF in cats with signs of lower respiratory tract disease, however in order to improve diagnostic yield of bronchoalveolar lavage, a technique that allows sampling of specific lung lobes should be considered. Therefore, where a bronchoscope is not available or feasible, F-BAL is a suitable alternative to B-BAL.

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