Thitiwan Patanasatienkul 2009: Epidemiology and Pain Assessment of Dogs with Joint Diseases Visited Kasetsart Veterinary Teaching Hospital. Master of Science (Veterinary Epidemiology), Major Field: Veterinary Epidemiology, Department of Veterinary Public Health and Diagnostic Services. Thesis Advisor: Assistant Professor Chalermpol Lekcharoensuk, Ph.D. 55 pages.

The study was divided into two parts, a retrospective case-control study and a case-control study. The objectives of the first study were to study epidemiology of joint disease in dogs visited Suvarnnachad therapeutic swimming pool at Kasetsart Veterinary Teaching Hospital in 2007, and to evaluate risk factors associated with hip joint diseases including age, sex, breed, size, and body weight.

The first study included 447 dogs. A case group consisted of 149 dogs with hip joint disorders; whereas 298 dogs without neuromuscular diseases, and joint diseases visited the hospital in the same period represented a control group. Risk factors were analyzed with multivariate logistic regression analysis. The results indicated that joint diseases was the most common problem affected 60% of dogs visited the pool in 2007. Of those dogs, hip joint was the most affected which accounted for 83% of 179 dogs with joint diseases. Furthermore, the study found that body weight, retriever breed, non-retriever purebred, and large-sized dog were risk factors for hip joint diseases in dogs. Odds ratios and 95% confidence intervals (CI) were 1.08 (95% CI, 1.05 to 1.11) for body weight, 4.16 (95% CI, 1.38 to 12.52) for retriever breed, 2.31 (95% CI, 1.15 to 4.67) for non-retriever purebred, and 2.81 (95% CI, 1.22 to 6.49) for large-sized dog.

The second study aimed to evaluate validity of 4 questionnaires including Helsinki chronic pain index (HCPI), Bioarth functional evaluation scale (BFES), orthopedic examination grading system (OEGS), and gait analysis (GA) that is a part of canine orthopedic rehabilitation evaluation form. These questionnaires intended to distinguish dogs with and without hip disorders (case and control group). Also, correlations among scores from each method as well as between owner scores and a veterinarian scores were assessed. Each group consisted of 20 dogs. Owners were asked to complete only HCPI and BFES form. But, a veterinarian, who evaluated all dogs, had to complete all. Data were analyzed using nonparametric analyses. The results showed that there were significant differences between scores of two groups ($p<.01$). Additionally, high correlations among scores from all questionnaires were found ($r = 0.70$ to 0.88, $p<.01$). Correlations between owner scores and veterinarian scores for HCPI ($r = 0.88$, $p<.01$) and BFES ($r = 0.79$, $p<.01$) were detected as well.

Overweight condition should be controlled to prevent dogs from hip joint diseases. Additionally, questionnaires are suitable methods for evaluating lame dogs, and can be used interchangeably by veterinarians and owners.

_____ _____ ___ / ___ / ___

Student's signature Thesis Advisor's signature