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**EUROPEAN COLLEGE  
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**ARISTOTLE UNIVERSITY OF THESSALONIKI  
SCHOOL OF VETERINARY MEDICINE  
SECTION OF RADIOLOGY**

# **ANNUAL MEETING 2007**

## **CONFERENCE GUIDE & ABSTRACTS BOOK**

**PORTO CARRAS, CHALKIDIKI, GREECE**

**29.08 - 01.09.2007**

## COMPARISON OF TRANSABDOMINAL AND TRANSRECTAL ULTRASONOGRAPHY OF THE PROSTATE GLAND IN DOG

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### INTRODUCTION

the aims of this study were: to compare the transabdominal and transrectal ultrasonography of the prostate gland in dogs, to estimate the dimension, volume and weight of the prostate gland and to derive a simple formula from actual and ultrasonographic prostate measurements.

### MATERIALS AND METHODS

reasons other than prostatic disease. Longitudinal and transverse sections were obtained and prostate length (L1), depth (D1) and width (W1) were measured in cm in transabdominal technique. But in transrectal procedure only prostate length (L2) and depth (D2) were obtained. Prostatic volume was calculated using the formula for the volume of an ellipsoid (PVE) and for a box (PVB). the actual prostate length, depth, width, weight and volume (V) were measured after euthanasia. All statistical analyses were performed using SPSS 0.9 software.

### RESULTS

the study was performed on 10 intact mongrel male dogs that required euthanasia for Mean  $\pm$ SD of the L1, D1 and W1 were  $3.35 \pm 0.4$ ,  $3.42 \pm 0.53$  and  $2.78 \pm 0.05$  and L2 and D2 were  $3.01 \pm 0.32$  and  $2.3 \pm 0.32$  cm respectively. There was highly significant correlation between prostatic parameters calculated from transabdominal and transrectal ultrasonography and their actual dimension ( $P \leq 0.001$ ). Based on linear regression the equations comparing actual prostatic volume to calculated volume are:  $V = 0.427 \text{ PVB} - 0.883$  ( $R^2 = 0.984$ ) and  $V = 0.796 \text{ PVE} - 0.402$  ( $R^2 = 0.977$ ). in transrectal ultrasonography there were not seen any damage to rectum and the time for evaluation of the prostate gland was faster than transabdominal method.

### DISCUSSION

Transrectal ultrasonography had been found to be a simple, quick and noninvasive method for evaluating the prostate gland in the dog. Prostatic dimensions in transabdominal method in this study were slightly greater and in transrectal method was smaller than other studies.