



THE 31ST MEETING OF THE
EUROPEAN SOCIETY & COLLEGE
OF VETERINARY PATHOLOGISTS
LONDON 2013

**31st Meeting of the
European Society of Veterinary Pathology**

and the

European College of Veterinary Pathologists

4th – 7th September 2013

Programme

**The Institute of Education
University of London
London, UK**





Oral Presentations

Session E: Neoplastic Disease

PTEN AND E-CADHERIN EXPRESSION ARE ASSOCIATED IN CANINE MAMMARY TUMORS

P. Asproni*, L. Ressel[†], F. Millanta*, I. Vannozzi* and A. Poli*

* Department of Veterinary Sciences, University of Pisa, Italy and [†]Department of Veterinary Pathology, University of Liverpool, UK

pietro.asproni@for.unipi.it

Introduction: PTEN is a tumor suppressor protein that negatively regulates tumor growth and invasiveness. E-cadherin is a trans-membrane molecule known for its tumor invasion-suppressor role. In human medicine, it has been hypothesized that the expression of these two proteins is correlated. The aim of this study is to evaluate by immunohistochemistry if their expression is associated also in canine mammary tumors.

Materials and Methods: Fifty-four canine mammary samples (15 hyperplasias, 7 adenomas and 32 carcinomas) were submitted to immunohistochemistry for the evaluation of PTEN and E-cadherin expression. Subjects bearing mammary carcinoma were also submitted to a 2-year follow-up study to compare overall survival with PTEN and E-cadherin expression.

Results: All the hyperplasias expressed both the markers, 100% of adenomas were positive for PTEN and 86% for E-cadherin, and 69% and 34% of carcinomas were positive for PTEN and E-cadherin, respectively. PTEN and E-cadherin expression was statistically correlated in all the tumors ($p < .01$) and in the malignant ones ($< .05$). The group positively-stained for the two markers correlated with a longer overall survival ($< .05$) and with the absence of lymphatics invasion ($< .05$).

Conclusions: Our results confirm the correlation between PTEN protein and E-cadherin expression and the tumor suppressor effect of this association in canine mammary tumors.

