Oral presentations

Klox fluorescence biomodulation system (KFBS), an alternative approach for the treatment of superficial pyoderma in dogs: preliminary results

Andrea Marchegiani, Alessandro Fruganti, Matteo Cerquetella, Adolfo Maria Tambella, Fulvio Laus, Andrea Spaterna

School of Biosciences and Veterinary Medicine – University of Camerino, Camerino, Italy

OBJECTIVES

The aim of this study was to assess the potential of klox fluorescence biomodulation system (KFBS) as sole treatment in dogs suffering from superficial pyoderma in comparison with systemic antimicrobial treatment.

METHODS

Eighteen dogs with clinical signs of superficial pyoderma were enrolled in this prospective, randomized, non-blinded study: eight dogs received only oral antibiotic cefadroxil (20 mg/kg, twice daily), 5 dogs received KFBS once weekly and 5 dogs received KFBS twice weekly until achieving complete clinical resolution. The KFBS treatment consisted of a two millimeters layer of a photoconverter gel directly spread on the affected pyoderma area and illuminated with a LED lamp for two minutes at approximately five centimeters distance.

RESULTS

The KFBS treatment groups exhibited excellent safety profile and achieved complete clinical resolution in 2.4 ± 1.1 ($p=0.05$) and 2.3 ± 0.7 ($p<0.05$) weeks for once-weekly and twice-weekly treatment dogs respectively, whereas cefadroxil group achieved this in 3.75 ± 1.0 weeks.

STATEMENT (CONCLUSIONS)

These preliminary results indicate that KFS may be an effective sole treatment for canine superficial pyoderma, reducing the need for systemic antibiotic use and with the potential to accelerate time to clinical resolution compared with systemic antibiotic treatment ($p<0.05$ for twice weekly KFBS group). Although topical antimicrobial treatment may be effective as sole treatment for superficial pyoderma, many cases still necessitate or are currently treated with systemic antibiotics. The fast emergence of multi-drug resistant bacteria in canine pyoderma makes the search of alternative therapeutic approaches highly relevant.

Essential oils versus antifungals – an *in vitro* study on their activity against *Malassezia pachydermatis*

Doris Bismarck, Anika Dusold, Elisabeth Müller

Laboklin GmbH & CO. KG, Bad Kissingen, Germany

OBJECTIVES

Malassezia pachydermatis (MP) is a commensal yeast of skin and mucosae in dogs. Nevertheless, an overgrowth can result in otitis externa. Topical therapy is commonly based on an antifungal combined with antibiotics and glucocorticoids. Essential oils (EO) are plant products with a complex composition exhibiting biological properties. EO are used in traditional medicine,

while antibacterial effects are described in veterinary medicine little information is available concerning *in vitro* antifungal activity. Objective was to analyse the *in vitro* efficacy of 22 EO against MP in comparison to 8 antifungals.

METHODS

MP was isolated from canine ear swabs ($n=15$) during veterinary routine diagnostics. The antifungal activity of EO (angelica root, cinnamon leaf, clary sage, clove, coriander seed, fennel, lavandin super, lavender fine, lemon, lemon grass, manuka, indian melissa, neroli, oregano, palmarosa, ravintsara, rose geranium, tea tree, thyme, thyme-linalool, thyme-thymol, winter savory) and antifungals (amphotericinB, clotrimazole, econazole, 5-flucytosine, ketoconazole, miconazole, natamycin, nystatin) was tested using agar disc diffusion. The efficacy of EO and antifungals is classified by the zone of inhibition of yeast growth.

RESULTS

Similar to antifungals EO have a distinct activity against MP. Lemon grass, winter savory, oregano, rose geranium,

palmarosa, indian melissa, thyme, thyme-thymol, thymelinalool, cinnamon leaf, clove, coriander seed oil and the antifungals econazole and miconazole were effective against all isolates. Neroli oil and the antifungal 5-flucytosine showed no activity.

STATEMENT (CONCLUSIONS)

This *in vitro* study identifies EO as possible candidates for alternative treatment of MP associated canine otitis externa, which is needed in times of resistances spreading among antimicrobial drugs.

A cross-sectional study on students' perception of the veterinary profession at a veterinary educational institution

Yeon Joon Park, Stephen May

Royal Veterinary College, London, United Kingdom

OBJECTIVES

The recent Vet Futures project found that only 59% of vets felt their work matched their expectations upon entering the profession. The objective of this study was to compare the differences in perception before, during and after veterinary university education.

METHODS

A paper-based questionnaire was developed for veterinary school applicants, pre-clinical students, final year students and recent graduates from the Royal Veterinary

College. Perception was defined using six parameters: working hours as practicing vet, average annual salary, time taken for pre-defined veterinary activities, amount of appeal for those activities, amount of reward for performing those activities, and the most important attribute of being a veterinary surgeon. All participation was on voluntary basis, and no incentives were provided.

RESULTS

Of the 489 responses, 456 met the inclusion criteria of completing all of the non-open ended questions. Veterinary school applicants had a highly inflated perception of the profession, finding most veterinary activities appealing and rewarding. Final year students believed in significantly longer working hours ($P < 0.01$) and lower pay ($P = 0.02$) than other groups. As they progressed through their veterinary education, a growing proportion of respondents believed Work-Life Balance to be the most important attribute of being a veterinary surgeon, whilst a decrease was observed in those who emphasised knowledge or clinical skills. No significant differences were observed according to gender, work experience, or companion animal ownership.

STATEMENT (CONCLUSIONS)

The study demonstrates the importance of highlighting a more realistic image of the veterinary profession to both the general public and veterinary students.

Attitudes towards rehoming animals – homing the less desirables

Shannon McCall, Mark Dunning

University of Nottingham, Nottingham, United Kingdom

OBJECTIVES

Background

The reasons behind potential adoptees (PA) choosing to rehome shelter dogs and cats remains undetermined in the UK. Despite this, euthanasia of shelter animals occurs

for particular health reasons; in cat's, retrovirus positivity is an important one.

OBJECTIVES

To determine the preferences of PA attending UK rehoming centres.

METHODS

A questionnaire was designed, piloted and refinements made, before distribution to UK rehoming centres and via social media to potential PA.

RESULTS

Of 3563 responses from PA, 88.4% had previously rescued an animal. The majority of PA (65%) did not consider age to be overly important, those that did (33%), preferred middle aged animals. Most of the participants (81%) were willing to take an animal in need of training (81%) or one lacking a limb, eye or ear (96%). A life-shortening illness