Bulletin

ESVD

EUROPEAN SOCIETY of VETERINARY DERMATOLOGY

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April 1999

Third International Baytril® Symposium

10th to 13th March, 1999

OVER 200 delegates from 24 countries were brought together in Seville for the Third International Baytril® Symposium, held in association with Bayer AG and the Spanish small animal veterinary association, AVEPA. The first veterinary fluoroquinolone, enrofloxacin, was introduced ten years ago and the advent of marbofloxacin, difloxacin and orbifloxacin made this a timely opportunity to review the pharmacokinetics and clinical use of these antibiotics.

Manfred Kietzman from Hannover discussed the pharmacokinetics of fluoroquinolones. Oral bioavailability close to 100% and a high volume of distribution ensures that high concentrations are rapidly achieved in target tissues. Hepatic disease, due to bilary excretion, may necessitate dose adjustment, but renal disease is of less concern. Their action is concentration dependant, the antimicrobial effect governed by the maximal concentration at the site of infection. Once daily administration of a flexible dose is thus appropriate in most cases. Dawn Boothe and Albert Boeckh from Texas A&M showed that 5·0–7·5 mg/kg enrofloxacin is sufficient for most organisms, although some *Pseudomonas* infections may require up to 20 mg/kg. However, as enrofloxacin is metabolised *in vivo* to ciprofloxacin, which has additive effects, *in vitro* culture and sensitivity may underestimate *in vivo* efficacy. Enrofloxacin also accumulates in peripheral leucocytes, particularly macrophages, 50–100 fold over plasma levels. Although the clinical significance of this is unclear, Terese Demanuelle from UC Davis demonstrated a correlation between enrofloxacin concentration and leucocyte infiltration in pyodermas, suggesting this may be one mechanism whereby fluoroquinolones penetrate particularly well into chronic inflammation, so often a barrier to therapy.

Peter Irkhe from UC Davis viewed German Shepherd Dog pyoderma as a clinical syndrome, triggered by a variety of factors in susceptible individuals, which may be inherited as an autosomal recessive trait. The distribution of the lesions may be a clue to the underlying disease. He stressed the importance of using antibiotics for 10–12 weeks to eliminate sequestered foci of infection and of pain management in these cases. Fluoroquinolones, with their high bioavailability, bactericidal action and excellent tissue penetration are a good choice. They also affect tissue necrosis factor-α levels and inhibit inflammatory cytokines, which may reduce chronic inflammation and contribute to a successful outcome.

Franz Pirro from Bayer AG showed that the susceptibility of field strains of bacteria to enrofloxacin remains high after ten years of use. Any resistance seen is largely due to individual selection by antibiotic use, and transferable, plasmid mediated resistance has not yet been recognised. However, in the future this will be dependant upon the rational and responsible use of fluoroquinolones, which may become subject to political and legal considerations.

David Aucoin from Santa Monica discussed the neglected field of client compliance. Compliance in paediatric medicine is only 25–50%, with efficacy and convenience perceived as the most important factors. Dosing errors are largely a function of the total number of doses given, not the duration of the course *per se*, highlighting the advantages of once daily dosing.

The full symposium proceedings should be available from Bayer AG later in the year.

EDITORIAL

WELCOME to the first ESVD Bulletin of 1999, and my first as editor. Chris Chesney, the outgoing editor, deserves our thanks and praise for continuing to develop the ESVD *Bulletin* with it's eclectic mix of observation, science and news. It has also proven an ideal medium for topics not readily applicable to more august journals. Recent articles on evidence based medicine, the internet and the abstracts service all prove this point. Many thanks are also due to Thierry Olivry for providing an unmatched abstract watch for the *Bulletin* in the past. It is with some trepidation that I now pick up the baton. There will be some changes, as with any handover, but I hope the *Bulletin* will continue to develop and mature.

The last ESVD–ECVD congress of the millennium will be held in Helsinki, the beautiful and historic capital of Finland, from 12th to 14th August. The web site for the congress (www.esvd99.great.fi) is a mine of information about travel and accommodation, the scientific and social programme, the accompanying persons tours and more. The abstract submission form can also be downloaded. The 16th ESVD–ECVD Annual Congress promises to a be hugely enjoyable and rewarding experience, but remember the deadline for the reduced congress rate is 30th April.

Tim Nuttall
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Environmental control of dust and mite allergens

In atopic dermatitis affected individuals develop a sensitivity to environmental allergens, principally house dust and house dust mites, that are of little significance in normal individuals.[1] The rising incidence of atopic diseases has been ascribed in part to increased exposure to mite allergens,[2] and although avoidance of these ubiquitous allergens is difficult, attempts have been made to reduce dust mite levels and ameliorate atopic diseases.[3]

Vacuuming and Cleaning

House dust mites thrive in carpets, rugs, soft furnishings, mattresses, blankets, clothing, stuffed toys etc., with large numbers in bedrooms and bedding, although solid floors harbour fewer mites.[4] Vacuuming cannot remove all mites, but regular, intensive cleaning can significantly decrease dust and dust mite levels.[5] Upright cleaners with microfilters are significantly more effective than non-filter and cylinder cleaners.[6] All potential mite habitats should be treated, as vacuuming carpets alone has little effect on the overall dust mite and dust levels.[5] Steam cleaning can effectively remove mites, denature allergens, reducing specific IgE binding, and can be combined with acaricides and detergents.[7]

Mite allergen levels in bedding are more strongly correlated to clinical signs in humans than bedroom floor levels.[4] Denying access to bedrooms and bedding may be helpful,[8] although pets habituated to sleeping with their owners may require behavioural modification. Impermeable covers, or solid plastic beds will minimise exposure to dust mites. Blankets and covers should be washed above 55°C as mites can survive cooler washes and dry cleaning only removes 70% of mite allergen.[9]

Ventilation and Air Filtration

Dehumidifiers in closed rooms reduced mite allergens by more than 50%,[10] as *Dermatophagoides* prefer warm, humid conditions, although in normal homes with free movement of water vapour the effect may be less marked. Improved ventilation also reduces dust mite allergen levels, with that in the bedrooms as important as total house ventilation.[11]

High efficiency particulate air (HEPA) filters can reduce airborne particle counts 100-fold over untreated air or standard air filters.[12] Deionisers impart a negative charge to airborne particles which are then attracted to positively charged surfaces, but without a collection device these collect on the walls, furniture and carpets.[5] Although hospitalisation and clean environment therapy is effective,[13] it is not a practical option in veterinary dermatology. Furthermore, there was no reduction in allergen levels or clinical benefit from the use of HEPA filters alone in normal homes[12] suggesting mite allergen levels in carpets and furnishings may be more important than airborne allergen *per se*.

Treatment with Acaricides

A number of different acaricides are available, but unless denaturing and persistent, they will have little effect as dead mites and faeces are still potent allergens and rapid recolonisation will occur. Combining acaricides with detergents facilitates removal of allergen from treated surfaces. Other considerations include ease of application, cost, damage to treated surfaces and potential side-effects in pets and owners.

SIXTEENTH ANNUAL MEETING · 12TH TO 14TH AUGUST 1999
MARINA CONGRESS CENTRE · HELSINKI · FINLAND

Call for Abstracts

SIXTEENTH ESVD–ECVD ANNUAL CONGRESS

12th to 14th August 1999 – Helsinki, Finland

THE 16th ESVD-ECVD Annual Congress is calling for submissions for short communications, either as oral or poster presentations. The oral presentations will be 12 minutes long (including discussion) and should report investigations into veterinary or comparative dermatology. As far as is possible, they will be grouped into sessions of similar themes. We are able to hold parallel sessions and therefore space is not anticipated to be a limiting factor – you are encouraged to submit.

All submissions must be received by April 30th, 1999. Authors will be informed by June 1st, 1999.

Please type abstract in Times Roman, 10- or 12-point, single spaced text. Cite a maximum of five (most relevant) references in the style: first author, journal data only.

ie. Sinke, J. et al – Vet Immunol Immunopathol 57:348, 1997

All abstracts will be scored blind by four scrutineers and authors will be informed of the decision by post. The abstracts will be scored as follows:

Design flawed –1, acceptable 0, good +1, excellent +2

Originality not original –1, moderate 0, reasonable +1, innovative +2

Relevance not relevant –1, partly relevant 0, high +2

PLEASE NOTE

1. A communication will not be accepted unless the final results are included.
2. A communication can not be accepted if previously presented at another international meeting in Europe or at the World Congress on Veterinary Dermatology.
3. The review panel will consist of two academic clinicians and two from practice.

Set print margins for abstract text as follows:

Top margin 11 cm
Left margin 6·5 cm
Right margin 2 cm
Bottom margin 4·5 cm

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Abstracts Form

Submission for oral communication ☐ *or a poster* ☐

Send this original form, together with four photocopies to:
Dr T. Willemse Dept Clinical Sciences of Companion Animals, University of Utrecht, Yalelaan 8, NL-3584CM Utrecht, The Netherlands, by April 30th, 1999.

First authors name: .....

Address: .....

.....

Telephone number: ..... Facsimile number: .....

Benzoyl benzoate is applied as a moist powder or foam for six hours every six months, although more longer and frequent applications have been suggested. The residue can be unsightly and sensitisation to the powder has been reported. Furthermore, although treatment may reduce mite numbers and allergen levels in carpets and furnishings, the effects are inconsistent and few clinical benefits have been noted.[14]

As *Dermatophagoides farinae* and *D.pteronyssinus* are sensitive to the insect growth regulator methoprene[15] environmental flea control may also control dust mite populations. They are also sensitive to permethrins, although resistant strains are widespread,[16] and sodium polyborate.

Tannic acid as a 3% spray or a 1% solution will kill mites and denature Der f1 and Der p1, significantly reducing the levels detectable in treated dust samples, although the effect was less consistent and short-lived after treatment of carpets and furnishings. The solutions are also difficult to apply, unsightly and may be sensitising.[17]

Conclusion

These studies have shown that control measures, applied consistently and thoroughly, can significantly reduce the levels of dust mite allergen in the environment. However, the clinical outcomes have been variable and a recent survey of a number of trials concluded that was no overall clinical benefit.[18] Further work is obviously needed in this field, and it may that environmental control measures will prove to be more important in avoiding initial sensitisation rather than in the management of established atopic dermatitis.[19]

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DERMATO-PATHOLOGY IN BARCELONA

GED–AVEPA are holding a five day workshop in dermato-pathology with Luis Ferrer, Alessandra Fondati and Dolors Fondevila, from 24th to 29th May. The topics include:

Taking biopsies & normal cutaneous structure and function

Cutaneous reactions to injury & the approach to pattern analysis

Perivascular dermatitis & vasculitis

Nodular/diffuse dermatitis & paniculitis

Interface dermatitis

Vesicular & pustular dermatitis

Folliculitis & furunculosis

Atrophic dermatitis & non-inflammatory alopecias

REGISTRATION FEES

AVEPA members – 75,000 pst
ESVD members – 85,000 pst
Non-members – 100,000 pst

To register, please contact:

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Biopsy success

How to help the dermatopathologist help you

BY *Dr Joan Rest*

FROM the pathologists point of view, the most important ingredient in success is *you*, the clinician. You need to ask the right question, take the right sample and take it well.

Why take a biopsy?

- Diagnosis and/or rule-outs.
- Confirmation of diagnosis before starting therapy and assessing progress of treatment.
- Suspect neoplasia.
- Persistent ulceration.
- Vesicles and bullae.
- Systemic illness or unusual presentation.

It is unethical to start a potentially toxic therapy without a diagnosis when this is readily available at reasonable cost.

Selection of site

- Three stages preferably, particularly if punches are used. Look for good lesions with a hand lens.
- Early, evolving lesion if only one site is possible, except in alopecia when a well developed lesion is best.
- Try to biopsy typical, rather than 'interesting', lesions, and preferably take lesions – not normal skin.
- Consider your sampling reliability – this influences the statistical probabilities of getting an answer.
- A large (ellipse) biopsy is best for the diagnosis of alopecia diagnosis.
- Take the edge of an ulcer to ensure some epidermis is present on the biopsy. Avoid necrotic areas.
- Take biopsies when the animal has been off steroids (as for intradermal allergy testing).

Technique

- No scrubbing, no cleaning, no shaving. Clip hair only.
- Minimal trauma. Use cold sterilised sharp instruments – a biopsy will be ruined by blunt instruments.
- Deep enough to include the subcutis (down to the fat) at right angles to the surface with straight sides.
- The longitudinal axis of an ellipse biopsy should be in the direction of hair growth (head-to-tail on most of the body).
- Use fine forceps or a biopsy hook to pick up the biopsy. Do not squeeze.
- Rest the biopsy, sticky side down, on card or wood for a few seconds before fixing.

What else should you send?

A good pathologist will always look at the slides before reading your history. After this, the pathologist needs a description of lesions and sites, your differential diagnoses and treatment given, particularly steroids which can change a diagnosis. Response to any treatment is helpful.

What results should you expect from different biopsies?

- If you biopsy primary lesions, you will get histopathology of primary lesions. If you biopsy secondary lesions, you will get histopathology of secondary lesions and the primary pathology may be obscured.
- Lesions may evolve eg. papule – vesicle – pustule – crust – alopecia. Many diseases can demonstrate a range of primary and secondary lesions dependent on the stage of disease.

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