IN-VIVO DETERMINATION OF DANOFLOXACIN POST-ANTIBIOTIC EFFECT AGAINST *Staphylococcus aureus* ATCC 29213 STRAIN.

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**INTRODUCTION**

The post-antibiotic effect (PAE) (1) is considered as the period of time needed by abacterial population to overcome the suppression imposed to its growth after a short exposure to an antimicrobial agent (2). The duration of the PAE is influenced by the bacterial species, the nature of the antibiotic and its concentration, and by environmental factors (temperature, pH, pO2, growth medium, the kind of body fluid) (3).

The clinical significance of the PAE pertains primarily to the impact it may have on the design of antimicrobial dosing regimens in clinical practice (5).

The purpose of the present study was to investigate the in vivo PAE of danofloxacin, using the thigh infection model in neutropenic mice (6), against standard strains of *Staphylococcus aureus* ATCC (29213).

**MATERIALS AND METHODS**

Microorganism. S. aureus ATCC 29213

Antimicrobial agents. Danofloxacin mesylate (DAN), obtained from Pfizer Inc. N.Y.

Culture medium: Mueller-Hinton broth, Mueller-Hinton agar.

Animals: Female and male C57/h3 mice weighing 28 to 32 g were rendered neutropenic by intraperitoneal injection of cyclophosphamide.

In vivo PAE. The in vivo PAE was determined according to the experimental procedure of Craig et al. (4).

**RESULTS**

The determination of danofloxacin in vivo PAE against *S. aureus*, using the methodology described by Craig in 1996, showed a duration of 2 hours (Fig 1).

**CONCLUSIONS**

The present study shows a significant PAE of DAN against *S. aureus*. This finding is of major importance in the clinical use of this quinolone because it could be administered at longer intervals without losing effectiveness in this infection.

**REFERENCES**

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