

## Comparative activity of azithromycin and doxycycline against *Brucella* spp. infection in mice

S. Domingo<sup>a</sup>, I. Gastearena<sup>b</sup>, A. I. Vitas<sup>c</sup>, I. López-Goñi<sup>c</sup>, C. Dios<sup>b</sup>, R. Díaz<sup>a,c</sup> and C. Gamazo<sup>c\*</sup>

<sup>a</sup>Dpto. de Microbiología, Clínica Universitaria. <sup>b</sup>Dpto. de Farmacia y Tecnología Farmacéutica and <sup>c</sup>Dpto. de Microbiología. Universidad de Navarra, Pamplona. Spain

Abstract of:

Journal of Antimicrobial Chemotherapy (1995) 36, 647-656

**SUMMARY.** The activities of a short therapeutic regimen with azithromycin and the classic treatment doxycycline with streptomycin were compared and evaluated in mice infected with *Brucella melitensis*. In a chronic model, starting therapy 31 days after challenge, azithromycin (10 days, 50 mg/kg/day) significantly reduced the infection (2.9 logs, day 48 post-infection). The effectiveness of doxycycline (21 days, 50 mg/kg/12 hourly) was greater than azithromycin (4.1 logs of re-

duction, day 48 post-infection) and when doxycycline was administered for a period of 45 days, all the animals were bacteriologically cured from day 78. The combination with streptomycin (14 days, 10 mg/kg/day) did not improve the effect of any of the regimens. In an acute model infection, treatments with doxycycline or doxycycline-streptomycin, for a period of 3 days, starting 1 day after lethal challenge, were able to protect all the mice. In contrast, only 50% of the mice treated with azithromycin survived the challenge. In conclusion, although a short oral treatment with azithromycin was able to reduce the infection significantly, it was not able to cure the animals as effectively as the classic regimen with doxycycline administered for a longer period of time.

## Endotoxin-Induced Intravascular Coagulation in Rabbits: Effect of Tissue Plasminogen Activator vs Urokinase on PAI Generation, Fibrin Deposits and Mortality

M.J. Paloma, J.A. Páramo, E. Rocha

From the Hematology Service, University Clinic of Navarra, School of Medicine University of Navarra, Pamplona, Spain

Abstract of:

© Thrombosis and Haemostasis 74 (6) 1578-82 (1995)

**SUMMARY.** We have evaluated the effect of plasminogen activators (t-PA and urokinase) on an experimental model of disseminated intravascular coagulation (DIC) in rabbits by injection of 20 µg/kg/h of *E. coli* lipopolysaccharide during 6 h t-PA (0.2 mg/kg and 0.7 mg/kg), urokinase (3000 U/kg/h) and saline (control) were given simultaneously with endotoxin. Results indicated that urokinase and low dose of t-PA

significantly reduced the increase of plasminogen activator inhibitor (PAI) activity observed 2 h after endotoxin ( $p < 0.001$ ). High t-PA dose also diminished the PAI levels at 6 h ( $p > 0.0001$ ). A significant reduction of fibrin deposits in kidneys was observed in both t-PA treated groups as compared with findings in the group of rabbits infused with saline solution ( $p < 0.005$ ), whereas urokinase had no significant effect on the extent of fibrin deposition. Finally, the mortality rate in the control group (70 %) was reduced to 50% in rabbits receiving high doses of t-PA. In conclusion, treatment with t-PA resulted in reduced PAI generation, fibrin deposits and mortality in endotoxin-treated rabbits.