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### **EFFICACY OF INTRASTROMAL CORNEAL INJECTION OF NATAMYCIN ON EXPERIMENTAL FUSARIUM SOLANI KERATITIS IN RABBITS**

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PURPOSE: To evaluate the efficacy of intrastromal corneal injection of natamycin on experimentally-induced *Fusarium solani* keratitis in rabbits.

METHODS: *Fusarium solani* keratitis was induced on the right eye of 45 male Norfolk rabbits following Ishibashi's technique (1978). Seven days after fungal inoculation, the rabbits were divided, by draw, into 3 groups of 15 animals each: Group I (GI): treated with a single 40 ml intrastromal corneal injection of 5% natamycin suspension in 2% methylcellulose; Group II (GII): treated with 5% natamycin drops, hourly, for 7 days; and Group III (GIII): treated with a single 40 ml intrastromal corneal injection of 2% methylcellulose. The drug injections will be made through two 250 mm deep intrastromal tunnels (20 ml into each) created by using a double Ferrara's spatula for intrastromal corneal ring segments. Seven days after treatment, all animals were sacrificed and their infected corneas were trephinated, excised, thoroughly washed with sterile saline solution, macerated and embedded individually into 10 ml of BHI (brain-heart infusion) broth with chloramphenicol and gentamicin. Ten ml samples from these suspensions were seeded on Sabouraud's agar plates every 24 hours until the 7th day after sacrifice. The number of colony-forming units (CFU) was counted and data was submitted to statistical analysis.

RESULTS: Nonparametric analysis of repeated measures showed statistically significant differences between the groups on days 3 (GI<GII<GIII, p<0,005), 4 (GI<GII=GIII, p<0,01) and 6 (GI=GII<GIII, p<0,05).

CONCLUSION: A single intrastromal corneal injection of natamycin appears to be as efficacious as hourly administration of natamycin drops for 7 days on experimentally-induced *Fusarium solani* keratitis in rabbits.