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Thesis Title: Effect of Theranekron® on healing of induced corneal ulcer in rabbit.

Abstract:

In humans, corneal ulcer infection is one of the leading causes of visual impairment, accounting for 2/3 of all cases of blindness. Corneal ulcers are often caused by infections resulting from bacteria, viruses, fungi, parasites, or trauma. In this study, rabbits were divided into four groups to investigate the effect of Theranekron on the healing of alkali burn-induced corneal ulcers. Initially, corneal ulcers were created in all rabbits using an alkaline solution applied with filter paper. The negative control group received Normal saline, the positive control group received Chloramphenicol eye drops, the first treatment group received subconjunctival Theranekron injection, and the second treatment group received Theranekron eye drops. The healing process of the ulcers was evaluated over 28 days by measuring the decrease in ulcer area, corneal thickness using ultrasonography, intraocular pressure (IOP), and tear production. The results demonstrated that the use of Theranekron, particularly through subconjunctival injection, promoted a faster healing rate of corneal ulcers in rabbits based on the assessment of ulcer area reduction and ultrasonography. The findings indicated the beneficial effects of Theranekron in accelerating ulcer healing, re-epithelialization, maintaining intraocular pressure, and natural tear production. Therefore, Theranekron could be considered an effective treatment in the management of corneal ulcers.

Keywords: Corneal Ulcer, healing, Theranekron, Rabbit.