

PENGARUH STERILISASI DENGAN OVEN PADA SUHU 135°C TERHADAP POTENSI NEOMISIN SULFAT DALAM SALEP MATA

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ABSTRAK

Salep mata Neomisin Sulfat yang telah dibuat disterilkan dengan suhu 135°C selama 60 menit lalu dilakukan uji sterilitas dan uji potensi. Sebelum diuji, sediaan salep mata dilarutkan dengan isopropil miristat. Uji sterilitas menggunakan metode filtrasi membran dengan media Kasamino yang diinkubasi pada suhu 25°C dan Tioglikolat pada suhu 35°C yang telah ditanami ½ bagian membran nilon yang telah digunakan untuk menyaring sampel lalu diinkubasi selama 7 hari. Dari hasil uji sterilitas diperoleh bahwa kedua sediaan tersebut steril. Untuk uji potensinya digunakan bakteri *Staphylococcus epidermidis* yang ditanam pada Antibiotik Medium I dengan menggunakan metode difusi agar (*cylinder cup*) yang dilakukan pada sediaan yang tidak disterilkan dan yang disterilkan dengan oven pada suhu 135°C selama 60 menit. Hasil uji potensinya menunjukkan bahwa kedua sediaan tersebut sama-sama memiliki daya hambat meskipun besar diameter hambatannya tidak sama. Pada sediaan formulasi salep mata Neomisin Sulfat yang tidak disterilkan memiliki daerah hambatan yang lebih besar dibandingkan dengan sediaan formulasi yang disterilkan.

Kata kunci: Salep mata, Neomisin Sulfat, Sterilitas, Potensi, *Staphylococcus epidermidis*.

THE EFFECT OF STERILIZATION AT 135°C WITH OVEN ON THE POTENCY OF NEOMYCIN SULPHATE IN EYE OINTMENTS

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ABSTRACT

Neomycin sulphate eye ointment that had been made was sterilized at a temperature of 135° C for 60 minutes. And then, sterility and potency test was carried out. Before tested, the eye ointment preparation was first dissolved in isopropyl myristate. Sterility test was carried out using membrane filtration method with Soybean-Casein Digest medium that was incubated at a temperature of 25 ° C and Thioglycolate medium at temperatures 35 ° C, which have been inoculated with half of nylon membrane that has been used to filter the sample and then incubated for 7 days. The results of sterility tests showed that both preparations were sterile. To test the potency, *Staphylococcus epidermidis* grown in Antibiotic Medium I was used with agar diffusion method (*cylinder cup*). The test was made on preparation that was not sterilized and preparation that was sterilized with the oven at 135 ° C for 60 minutes. Potency test results showed that both preparations were equally have inhibition power to bacteria despite the diameter of the inhibition were not the same. On the preparation that was not sterilized, neomycin sulfate had a greater inhibition power compared with the preparation that was sterilized.

Keywords: eye ointments, Neomycin sulphate, sterility, potency, *Staphylococcus epidermidis*.