

**PENGARUH STERILISASI DENGAN OTOKLAF
SUHU 115°C SELAMA 30 MENIT TERHADAP
STABILITAS EMULSI PARENTERAL
MINYAK ZAITUN (OLEUM OLIVARUM)
DENGAN EMULGATOR LESITIN 4,5%**

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ABSTRAK

Telah dilakukan penelitian tentang bagaimana pengaruh sterilisasi dengan otoklaf suhu 115°C selama 30 menit terhadap stabilitas fisika emulsi parenteral minyak zaitun (*oleum olivarum*) dengan emulgator lesitin 4,5%. Parameter stabilitas fisika yang diamati dalam penelitian ini meliputi organoleptis, pH, viskositas dan sifat alir, ukuran droplet, dan pembentukan *creaming*. Dilakukan pembuatan emulsi parenteral menggunakan alat multimix kemudian sediaan disterilkan dengan otoklaf dan pengamatan dilakukan selama 7 hari untuk melihat pengaruh sterilisasi terhadap parameter fisika sediaan emulsi parenteral. Uji sterilitas sediaan pada media dinyatakan steril karena tidak terdapat pertumbuhan bakteri dan jamur. Didapatkan hasil bahwa sterilisasi dengan otoklaf tidak berpengaruh terhadap organoleptis sediaan dimana tidak menyebabkan terjadi perubahan pada bentuk, warna dan bau sediaan emulsi parenteral. Sterilisasi menyebabkan penurunan pH dan viskositas sediaan, terjadi peningkatan ukuran droplet, serta menimbulkan *creaming* pada sediaan emulsi parenteral.

Kata Kunci : Emulsi Parenteral, Sterilisasi, Oleum Olivarum, Lesitin

THE EFFECT OF STERILIZATION BY AUTOCLAVE AT 115°C TEMPERATURE FOR 30 MINUTES ON STABILITY OF PARENTERAL EMULSION OF OLIVE OIL (OLEUM OLIVARUM) WITH LECITHIN EMULGATOR 4,5%

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ABSTRACT

A research about the effect of sterilization with autoclave at temperature 115°C for 30 minutes on physical stability of Olive Oil parenteral emulsion with 4,5% Lecithin emulgator has been done. Physical stability parameters being observed in this research are organoleptic, pH, viscosity and flow properties, droplet size, and creaming formation. In this research, parenteral emulsion was prepared using multimix mixer and then it is sterilized using autoclave and observation is done within 7 days to know the influence of the sterilization on the physical parameters of parenteral emulsion preparation. The sterility test in this research were done by using the membrane-filtration method. The results of the sterility test were sterile. It was because on the final observation there were no growth of bacteria and fungi inside Thioglycolate Medium and Soybean-Casein Digest Medium. The result of this study that sterilization by autoclave has no effect on the organoleptic because it was not causing any changes in shape, colour, and smell of parenteral emulsion preparation. Sterilization caused a decreased in pH and viscosity of the preparations, and an increased in droplet size and creaming formation in the parenteral emulsion preparation.

Kata Kunci : Parenteral Emulsion, Sterilization, Olive Oil, Lecithin