The Difference between Total and Active Transforming Growth Factor E2 Concentration on Fresh and Freeze-Dried Amnion Membrane (Laboratory Experimental Study in Dr. Soetomo General Hospital Surabaya)

Abstrak:

The aim of this study was to evaluate the change of Transforming Growth Factor E2 (TGF-E2) concentration due to freeze-dried method. This study was an experimental laboratory study, performed on 14 amniotic membranes at biomaterial centre/tissue banking Dr. Soetomo General Hospital Surabaya. Each amniotic membrane was divided into two parts. The first part was extracted in fresh and the second part underwent freeze-dried preparation before extracted. Both parts of the amniotic membrane were extracted using ultrasonic disintegrator. Concentration of TGF-E2 with and without activation was measured using ELISA method. The average concentration of TGF-E2 without activation (active) in fresh amniotic membrane was 274 ± 264.9 pg/g and freeze-dried was 76.1 ± 97.6 pg/g, the average degradation of TGF-E2 was 43.2%. The average concentration of TGF-E2 with activation (total) in fresh amniotic membrane was 445 ± 855.6 pg/g and freeze-dried was 347.4 ± 665 pg/g. Active TGF-E2 concentration in fresh amniotic membrane is significantly higher than TGF-E2 concentration in freeze-dried amniotic membrane.

Keyword:

Daftar Pustaka:

Pinnita Prabhasawat, Application of Preserved Human Amniotic Membrane for Corneal Surface Reconstruction Department of Ophthalmology, Mahidol University 1999 Bangkok
Patil Amil, Billore Amnion Membrane Transplantation A Fresh Tissue Experience Rotary Eye Institute, Navsari Gujarat 2006 -