

2nd International Conference on Pharmaceutics & Novel Drug Delivery Systems

20-22 February 2012 San Francisco Airport Marriott Waterfront, USA

TITLE

The Use of Egg Yolk Oil and Chitosan Gel with Epidermal Growth Factor in the Treatment of Dermal Burns

E. Yenilmez

Anadolu University, Turkey

Chitosan (CS), an excellent biopolymer obtainable from renewable resources has become of great interest as a new functional material of high potential in various fields. In Anatolia people use oil from egg yolks in the treatment of skin burns for several years. Scientifically examined, egg yolk contains cholesterol, phospholipids, vitamins and cephalin. Scientifically there is no study about the therapeutic properties of yolk and the project is the first study in this area. Our project is the development of topical chitosan formulations containing growth factors and egg yolk oil and in vitro - in vivo evaluation of formulations. Gel formulation containing epidermal growth factor (EGF) and egg yolk oil were developed and characterization studies also stability studies of formulations were revealed. In vivo studies, Wistar rats were divided into five groups as follows: chitosan gel with and without EGF, chitosan gel with egg yolk oil, pure egg yolk oil and untreated control group, respectively. A uniform deep burn of the back skin was performed with heated iron to 85°C. The formulations were repeatedly applied on the burned areas for 21 days (one application per day). Healing of the wounds was evaluated immunohistochemically, histochemically and histologically on the tissue samples.

Biography

Dr Evrim Yenilmez has completed her Ph.D at the age of 28 years at Anadolu University Faculty of Pharmacy, Pharmaceutical Technology Department in Turkey. Since 2007, she is Assistant Professor in Pharmaceutical Technology Department, she is a lecturer and researcher. Her research is focused on Nanotechnology; Drug Delivery and Cosmetic Delivery Systems. She has attended several Symposiums with oral and poster presentations