

嘉南藥理科技大學專題研究計畫成果報告

計畫名稱

Development of a stable cream formulation for fusidic acid

計畫類別：個別型計畫

計畫編號：CNPH92-17

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執行單位：藥學系

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The major purpose of this project is to develop a stable cream formulation for fusidic acid. Fusidic acid is an antibiotic exerting antibacterial activity against most Gram positive organisms. In particular, it is effective against pathogenic Staphylococci. It also has some activity against Gram negative organism and fungi.

Since many literatures suggest fusidic acid is an effective antibiotics for skin infection and the drug may not be stable under certain conditions; in order to apply the drug locally, it is desirable to develop a stable cream formulation for fusidic acid and to evaluate its stability. The present project contains two major topics: The first part is to develop several cream formulations that may be compatible for fusidic acid. The second part is to evaluate the stability of the formulations under 40 degree and 75 %RH in order to obtain the optimum cream formulation for the drug.

The results (Table 1 and Table 2) show that, within the 6 month periods of study, the steroid is stable in both tubes and bottles. That is, no appreciable degradation was found in both containers. The results suggest two years of shelf-life can be granted in both containers.

Table 1. The stability data of fusidic acid cream in the bottle

(40 degree, 75% RH stability chamber)

Duration (month)	0 month	2 month	4 month	6 month
Appearance	passed	passed	passed	passed
Assay percentage	105.27%	105.42%	104.96%	104.77%

Table 2. The stability data of fusidic acid in the tube

(40 degree, 75% RH stability chamber)

Duration (month)	0 month	2 month	4 month	6 month
Appearance	passed	passed	passed	passed
Assay percentage	105.27%	104.62%	104.73%	104.52%