

[PE3-1] [ 04/19/2001 (Thr) 15:00 – 16:30 / Hall 4 ]

### **Design, Characterization of mucoadhesive vaginal liquid suppository containing clotrimazole**

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For the development of vaginal liquid suppository containing clotrimazole, we studied the formulation, characterization of liquid suppository. Antifungal effect of clotrimazole was increased at pH 4.0 and 5.0 than pH 6.0 and 7.0. With increasing concentration of polycarbophil(PC) was increased the adhesiveness and syringeability. The effect of these polymer on mucoadhesion was important on their mucoadhesive nature. In rheological measurements, the storage modulus was increased by temperature sweep from 10 to 40 and an increasing concentration of PC resulted in decreasing sol-gel temperature. In the above study, formulation was selected as P 407/188/PC(15/20/0.2) containing clotrimazole 1% that offered an appropriate balance of the above physical properties. Therefore, the current development of vaginal liquid suppository may provide a useful delivery systems for clotrimazole in terms of excellent physicochemical properties as mentioned above.

[PE3-2] [ 04/19/2001 (Thr) 15:00 – 16:30 / Hall 4 ]

### **In vivo evaluation and safety of mucoadhesive vaginal liquid suppository containing clotrimazole**

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For the development of vaginal liquid suppository containing clotrimazole, we studied in vivo evaluation and safety of liquid suppository. In cell toxicity, clotrimazole was toxic to human cervical cell in a dose-dependent manner. However, the incorporation of the clotrimazole into the gel markedly reduced its toxicity. The in vivo antifungal activity of this formulation was compared to an PEG based formulation, during 10 days following administration of the test formulation. There was a significant improvement in antifungal activity, which the number of *C. albicans* was reduced in rat vagina. However, PEG based formulation showed a significant reduction on 4. day but did not completely eliminate *C. albicans* from the vagina and the number of yeast were increased on 7. day. Therefore, the current development of vaginal liquid suppository may provide a useful delivery systems for clotrimazole in terms of excellent efficacy and safety as mentioned above.

[PE3-3] [ 04/19/2001 (Thr) 15:00 – 16:30 / Hall 4 ]

### **Effect of additives on the powder characteristics of peonja dry elixir**

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