than former gastro-soluble polymer-containing one and extract itself.
Consequently, the use of enteric polymer as the carrier for improving the absorption is more possible than gastro-soluble one in spite of its nearly complete dissolution in gastric circumstance.

[PE1-9] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

Controlled Release of Triprolidine from EVA membrane

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Oral administration of triprolidine, antihistamines, may cause many adverse effects such as dry mouth, sedation, dizziness, and transdermal drug delivery was considered. EVA (ethylene vinyl acatate) membrane which is heat-processible, flexible, inexpensive material was used for transdermal drug delivery. The permeability of triprolidine through EVA membrane was studied. The EVA matrix containing triprolidine were fabricated and the release patterns were observed. The effects of polyethylene glycol 400, membrane thickness, drug concentration, temperature, and vinyl acetate content of EVA were studied. The solubility of triprolidine increased exponentially as the increased volume fraction of PEG 400 in saline. The release rate of drug from EVA matrix increased with increased temperature, loading dose, and vinyl acatate content of EVA. The EVA membrane might be useful for the development of transdermal drug delivery system.

[PE1-10] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

Solubilized formulations of ibuprofen in soft capsule employing SMEDDS

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Ibuprofen, a poorly water soluble nonsteroidal antiinflammatory drug was incorporated in self-microemulsifying drug delivery system(SMEDDS) to improve oral absorption and bioavailability. First of all, solubility of ibuprofen in various ingredients was determined to optimize SMEDDS formulations, revealing the results of several hundred times higher solubility in oils and surfactants than that of water. Phase diagram with various regions including microemulsion area was depicted. Secondly, comparative dissolution tests were carried out under the various conditions of different media with two generic tablets from different company as control preparation. Soft capsules of SMEDDS formulation showed the better dissolution profiles, especially in acidic condition, than the other controls. For the period of 2 hr dissolution in pH 1.2 medium, it reached over 70% dissolution from soft capsules, compared to less than 40% dissolution from control tablets. Finally, in vivo pharmacokinetic parameters were obtained after an oral administration of ibuprofen preparations to Sprague-Dawley rats. SMEDDS formulations of ibuprofen showed higher Cmax with greater AUC(0-12hr) than the suspension of control tablets or ibuprofen powder. Therefore, it is possible to conclude that a newly developed soft capsules containing SMEDDS-formulated ibuprofen might provide an alternative preparation to improve oral bioavailability of water-insoluble ibuprofen.

[PE1-11] [04/19/2001 (Thr) 15:30 - 16:30 / Hall 4]

Development of Targeted Gene Delivery Systems

Joo SY°, Jeon EJ and Kim JS