

such as diphenyl hydrantoin (phenytoin) and diphenyl dimethyl dicarboxylate (DDB) based on the molecular interaction between drug and additives during pharmaceutical processing to be related with the bioavailability behavior. Here, the characterization on molecular interaction present drug and additives occurred during grinding pharmaceutical process was mainly measured using particle size analyzer. It was confirmed based on The data from in vitro test for bioavailability of solubility and dissolution rate is that the solubility data of ground samples could be improved by decreasing the particle size of ground samples and the solubility of nano-sized particle by a nanomizer was significantly enhanced higher than intact DDB.

[PE1-4] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

The Study of Stability of Oral Pharmaceutical Liquid Preparation II

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The available period of oral pharmaceutical liquid preparations was decided according to the study of the stability of unopened preparations. But if one reuses the drug after opening the sealed cap , the major components of the drug could change in quality. In addition, there isn't any accurate information about the available period of opened oral pharmaceutical liquid preparations. In this study, a long term test, an accelerated test and a microbial limit test are run with C (pseudoephedrine and triprolidine), D (ibuprofen) that are marketed and used frequently . Sample products are stored as the state of CLOSE (store it as initial marketed form, unopened) and the state of C/O (open and close cap regularly after opening it) .The results from above two states are analyzed comparing with each other. The active substances of each product are assayed by HPLC method described in compendial monographs. In the long term test, there wasn't any significant change of active substances until 4 months. Syrups stored in each condition in the long term test didn't show any significant change in physical testing of pH, color, and odor. But in accelerated test, the change of active substances is greater than that in the long term test and is proportional to temperature. In the microbial limit test , any bacteria and fungi have not been observed until 3 months.

[PE1-5] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Poly(l-lactide) membranes with biomimetic nanolayer for bone induction for tissue regeneration

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The healing of a bone defect is complex, and involves a wide range of cellular, molecular, physiological, and biological processes. The main effect of bone substitute is to promote wound healing by induce cell proliferation. Bone defect sites usually are localized below the original bone surface; therefore, space production and maintenance between the membrane and the original bone surface is essential. As a result, membranes must have proper mechanical strength to prevent the collapse of the soft tissue and maintain wound space that permits bone growth. In addition, biodegradability is further required to avoid second retrieval surgery. In our study, porous membranes of poly (L-lactide) (PLLA) were fabricated to provide and maintain sufficient space for bone growth. Collagen, gelatin, chitosan have been widely used as biomaterials, and these may be attractants for osteoblasts wound repair. In this work, the focus was on the nanofibers or nanoparticles of collagen, gelatin and chitosan modified PLLA membranes by electrospinning method, and to investigate their effects on the physico-chemical and biological property of the materials.

[PE1-6] [2003-10-11 09:00 - 12:30 / Grand Ballroom Pre-function]

Intravenous and Intra-arterial Delivery of Plasmid DNA/Cationic Lipiodol Emulsion