Design and development of matrix type hydroxyzine hydrochloride transdermal patches

K. Venkatasubramanyam
G. Pulla Reddy College of Pharmacy, India

Matrix type transdermal drug delivery systems (TDDS) of Hydroxyzine hydrochloride (HHCL) with and without permeation enhancers were prepared by solvent casting method. Mixture of polymers Eudragit RS100, Eudragit RL100, PVP, HPMC E15 LV and ethyl cellulose were employed in the preparation of patches. Dibutylphthalate was used as plasticizer. The prepared patches were evaluated for physicochemical characterization, in vitro and ex vivo diffusion study. In order to reduce the skin barrier property and to enhance the skin permeation of drug, permeation enhances transcutol and propylene glycol were incorporated in polymeric films.

The central composite design was applied to optimize the best permeation enhancer. Formulations (HhLS3 0t) with Eudragit RS100, RL100 at 25% transcutol concentration and formulation (HhLS3 -1P) with Eudragit RS100, RL100 at 15% propylene glycol were found to be the best. Among these two permeation enhancers used, no statistically significant difference (p> 0.05) was observed between transcutol (25%) and propylene glycol (15%). All the optimized formulations had shown zero order kinetics and non fickian type of diffusion. No signs of skin-irritation were observed in testing with rabbit.

Application of Nanoparticles in Biology and Medicine

Pavan Kumar Reddy
J.S.S.CP, J.S.S University, Mysore

Nano materials are at the leading edge of the rapidly developing field of nanotechnology. Their unique size-dependent properties make these materials superior and indispensable in many areas of human activity. This brief review tries to summarise the most recent developments in the field of applied nano materials, in particular their application in biology and medicine, and discusses their commercialisation prospects.

Quality Management in International Clinical Trials

Bhausaheb Patil
Head-Clinical Operations Quality Management Asia at Quintiles, Singapore

Clinical Trials are becoming more and more complex and with advances in technology it is adding more complexity. One can work proactively to look at some study/ site related risk on an ongoing basis and use such information to avoid risks before they become issues. Such information can be effectively used to train Investigators and also to Site Monitors. Possible Quality Management approach towards this will be discussed.

Biography

He has worked with all top 10 Pharmaceutical and also few Biotech Companies of the world in their various product development programs which involved more than 500 clinical sites in India. He conducted over 50 GCP sessions/ Workshops for Investigators and Ethics Committee Members across various hospitals in India. He also conducted more than 25 Career Development Sessions for Pharmacy/ Life Sciences graduates/ Post-graduate students at various colleges/ universities in India. He attended numerous Professional Development Courses (in house as well as outdoor) ranging from Junior Management to Senior Management Development Programs arranged with the help of outside faculty members. He Served as Head of CTL Services for Southeast Asia (Singapore, Malaysia, Taiwan, Thailand, Philippines, Vietnam, Indonesia) and Korea with the help of team of 35 Clinical Team Leaders and also management of operations in Indonesia. He is Currently responsible for managing Clinical Operations Quality Management for Asia region at Quintiles.