Pharmaceut Reg Affairs 2012, 1:4
http://dx.doi.org/10.4172/2167-7689.S1.007

OMICS Group Conferences
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2nd International Conference and Exhibition on
Pharmaceutical Regulatory Affairs

November 23-24, 2012 Hyderabad International Convention Centre, India

Study of cutaneous adverse drug reactions in a tertiary care hospital

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ADR'S are negative consequences of drug therapy and can be a major setback in clinical practice. Cutaneous adverse drug reactions (CADR'S) are the commonest manifestations of ADRs. Effective monitoring of CADRs forms an integral part of ADR monitoring programmes as well as pharmacovigilance. The present study was taken to augment existing limited data regarding CADRs. All cases suspected of having a CADR during the period of one and half year were evaluated by a prospective study. The causal relationship with the offending drug was established as per WHO-UMC causal assessment scale. Only certain, probable and possible cases were considered for the study and the data was subjected to descriptive and statistical analysis. This study shows that a wide range of CADR'S from mild to moderate to severe like SJS/TEN are possible. Antimicrobials and Analgesics/NSAID'S were found to be most common causative drug category. According to Hartwig severity scale most of the reactions were of moderate type. According to WHO-UMC criteria most of the reactions were probable followed by possible. Based on Schumock Thornton criteria majority of CADR'S were not preventable. Similar studies conducted over longer period are necessary to validate the findings. Adverse drug reaction monitoring should be a ongoing and continuous process because newer and newer drug molecules are being introduced in the market and monitoring of adverse effect of new drug molecules particularly serious adverse effects is the need of the hour. Physicians and other health care professionals should be made aware of and trained in rational drug use and drug monitoring process.

Biography

Mohammed Yunus Khan is pursuing his postgraduation (MD, Pharmacology) in Kakatiya Medical College, Warangal.

Formulation and development of solid lipid nanoparticles of atorvastatin calcium

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Solid lipid nanoparticles (SLNs) are a colloidal carrier system for controlled drug delivery. Atorvastatin calcium, a lipophilic antihyperlipidemic drug, has very poor oral bioavailability (<15%) due to first pass effect and high intestinal clearance. Solid lipid nanoparticles system of atorvastatin calcium was investigated for improvement in release, pharmacokinetics and pharmacodynamic activity. The SLNs formulation prepared by solvent injection technique was optimized by 32 full factorial design. Optimized SLNs was deduced on the basis of dependent variables that were analyzed using Design expert 7.0.2® software (Stat Ease, Inc., USA). The lipophilic model drug atorvastatin calcium was incorporated to study the recovery of nanoparticles, entrapment efficacy, zeta potential (charge) and drug delivery characterization. Drug-excipient's compatibility was studied by FTIR (Fourier Transform Infrared Spectroscopy) and DSC. These results also demonstrate the principle suitability of SLN as a prolonged release formulation for lipophilic drugs. The optimized SLNs was a suspension of nanosized homogeneous particles with significantly higher entrapment efficiency (>70%). The pharmacokinetic parameters of optimized SLNs in rat, obtained using Graph-pad software revealed 2.74 folds increase in bioavailability as compared to atorvastatin calcium tablet (marketed formulation). This investigation demonstrated the SLN for improved oral delivery and it was deduced that the solid lipid, & surfactant were the principal formulation factor responsible for the improvement in characteristics, pharmacokinetics and pharmacodynamic activity of SLNs.

Biography

Atorvastatin calcium (ATC), Solid lipid nanoparticles (SLNs), Solvent injection technique, Entrapment efficacy, Prolonged release, Bioavailability

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