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| (54) Title of the invention : BOSENTAN LOADED TRANSDERMAL PATCH FORMULATION FOR TOPICAL DELIVERY AND IN-VITRO EVALUATION | | | |
| <div>(51) International classification :A61K0009700000, A61P0009120000, A61K0047100000, A61K0009000000, A61K0047120000</div> <div>(86) International Application No :NA</div> <div>(87) International Publication No : NA</div> <div>(61) Patent of Addition to Application Number :NA</div> <div>(62) Divisional to Application Number :NA</div> <div>Filing Date :NA</div> | | <div>(71)Name of Applicant : 1)Dr. T. Balakrishna Address of Applicant :Professor, Department of Pharmaceutics, V. V. Institute of Pharmaceutical Sciences, Seshadri Rao Knowledge Village, Gudlavalleru-521356, Andhra Pradesh, India Gudlavalleru ----- -- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. T. Balakrishna Address of Applicant :Professor, Department of Pharmaceutics, V. V. Institute of Pharmaceutical Sciences, Seshadri Rao Knowledge Village, Gudlavalleru-521356, Andhra Pradesh, India Gudlavalleru ----- -- 2)Dr. A.Indira Address of Applicant :Lecturer, Department of Chemistry, V V Giri Government kalasala-Dumpagadapa, West Godavari, Andhra Pradesh-534235, India Dumpagadapa ----- 3)Dr. Mohan Gandhi Bonthu Address of Applicant :Professor, Department of Pharmaceutical Analysis, School of Pharmaceutical Sciences, Sandip University-Nashik, Maharashtra-422213, India Nashik ----- 4)Dr. J. Venkateswara Rao Address of Applicant :Professor, Department of Pharmaceutics, Santhoshimata College of Pharmacy, Panhalsathe-Nashik, Maharashtra-423403, India Nashik ----- 5)Ms. T. Sravani Address of Applicant :Associate Professor, Department of Pharmaceutics, V. V. Institute of Pharmaceutical Sciences, Seshadri Rao Knowledge Village-Gudlavalleru, Andhra Pradesh-52135, India Gudlavalleru ----- ----- 6)Mr. V.L. Vinod Kumar Address of Applicant :Associate Professor, Department of Pharmaceutics, V. V. Institute of Pharmaceutical Sciences, Seshadri Rao Knowledge Village-Gudlavalleru, Andhra Pradesh-52135, India Gudlavalleru ----- ----- 7)Mr. SK. Nagul Meeravalli Address of Applicant :Assistant Professor, Department of Pharmaceutics, V. V. Institute of Pharmaceutical Sciences, Seshadri Rao Knowledge Village-Gudlavalleru, Andhra Pradesh-52135, India Gudlavalleru ----- ----- 8)Mr. SK. Rasheed Address of Applicant :Assistant Professor, Department of Pharmaceutics, V. V. Institute of Pharmaceutical Sciences, Seshadri Rao Knowledge Village-Gudlavalleru, Andhra Pradesh-52135, India Gudlavalleru ----- ----- 9)Ms. D.G.N.V. Gayathri Address of Applicant :Student, Department of Pharmaceutics, V. V. Institute of Pharmaceutical Sciences, Seshadri Rao Knowledge Village – Gudlavalleru, Andhra Pradesh-52135, India Gudlavalleru ----- -- 10)Mr. K. Balaji Sree Vasta Address of Applicant :Student, Department of Pharmaceutics, V. V. Institute of Pharmaceutical Sciences, Seshadri Rao Knowledge Village – Gudlavalleru, Andhra Pradesh-52135, India Gudlavalleru ----- --</div> | |
| (57) Abstract : | | | |
| A transdermal patch containing Bosentan, a pulmonary artery hypertension drug is provided which has an excellent percutaneous absorability and can adhesive on to the skin easily. The Bosentan loaded transdermal patch, comprising: Bosentan 10mg; Polyethylene oxide 90mg; PEG 600 2ml; Propylene Glycol 4ml; Ethanol:Dichloromethane (1:1) 10ml. The method for preparing Bosentan loaded transdermal patch formulation, comprising: dissolving Bosentan and polymer in ethanol and sonicating for 30mins to obtain a homogenous semisolid consistency; adding PEG 600 and Propylene glycol and mixing; casting the prepared solution into petridish containing mercury as a substrate and allowed to dry at room temperature for 48hours; collecting the dried patches and storing in desiccator. The Bosentan loaded transdermal patch, wherein the Solvent casting technique is used for the preparation of Bosentan transdermal patches; Weight Uniformity 100+0.008mg, Drug Content 98.06+0.1%, Patch thickness 0.150+0.03mm, Swellability 93.88+0.79%, Folding Endurance 100+0.02 and Flatness 100%; the transdermal patch released the drug 94.77% up to 12hours. The Bosentan loaded transdermal patch, wherein the spectrum of transdermal formulation showed all the peaks present in the Bosentan pure drug. The Bosentan loaded transdermal patch shows potential agent in extended drug release for the management of high blood pressure in the lungs (pulmonary arterial hypertension). | | | |
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