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(57) Abstract :

Glimepiride is a third generation anti-diabetic drug used for the treatment of type 2 diabetes (non-insulin dependent diabetes). It is a sulphonyl urea compound which is poorly water soluble. The present invention discloses an improved formulation of Glimepiride with enhanced solubility and significantly improved therapeutic profile. The improved formulation consists of the drug and modified locust bean gum in a specific ratio of 1: 6 (1 part drug: 6 parts gum). The method used for making the composition is solid dispersion technique employing solvent evaporation in which the drug is dissolved in solvent along with polymer and thereafter solvent is evaporated. In in vivo studies conducted in rats, the pure drug was able to reduce glucose levels in plasma only by 33% whereas the improved formulation reduced the blood glucose levels by 55% in 30 minutes.

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