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Formulation of Extended-Release Ranolazine Tablet and Investigation Its Stability in the Accelerated Stability Condition at 40ºC and 75% Humidity

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Abstract : Formulation of Ranolazine in the form of extended-release tablet in 500 mg dosage form was performed using Eudragit L100-55 as a retarding agent. Drug-release profiles were investigated in comparison with the reference Ranexa extended-release 500 mg tablet. F_2 and f_1 were calculated as 64.16 and 8.53, respectively. According to Peppas equation, the release of drug is controlled by diffusion (n=0.5). The tablets were put into accelerated stability conditions (40 °C, 75% humidity) for 3 and 6 months. The dissolution release profiles and other physical and chemical characteristics of the tablets confirmed the robustness and stability of formulation in this condition.

Keywords : drug release, extended-release tablet, ranolazine, stability
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