

Study of dissolution behavior of matrices tablets based on alginate - Gelatin mixtures as prolonged diltiazem hydrochloride release systems

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The aim of this work was to develop prolonged diltiazem hydrochloride release matrices based on alginate-gelatin mixtures and establish the drug release mechanism. The erosion, swelling, and dissolution behavior of the tablets in different medium were evaluated. The different polyelectrolyte behavior and gel strength between type A Gelatin and type B Gelatin would explain the different swelling, erosion and dissolution behavior in the media with sudden pH change. The similar dissolution behavior in the pH, which simulates the physiological pH through the gastrointestinal tract, should be explained because the same main species for gelatin A and Gelatin B would be present in this media. Copyright © Informa Healthcare.