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Formulation and Evaluation of Biphasic Release Tablet Containing Diclofenac Beads

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SUMMARY. The purpose of the present research work was to produce a biphasic delivery system for Diclofenac sodium. A dual component tablet made up of a sustained release beads and immediate release tablet coat was prepared by direct compression using super disintegrating agent. Both the beads and coat contained a model drug (diclofenac sodium). The sustained release effect was achieved with polymers chitosan and sodium alginate. The *in vitro* release profile from these tablets showed the desired biphasic behavior, the diclofenac contained in the fast releasing component was dissolved within 15 min, whereas the drug in the beads was released upto 8 h.

KEY WORDS: Alginate, Beads, Biphasic delivery system, Chitosan.

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