



Didanosine-Loaded Chitosan Microspheres: Optimization of Fabrication Process

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SUMMARY. Didanosine (ddI) is an important drug in the AIDS therapy. However, to overcome the instability of ddI in acid medium, the tablets have a large amount of buffer that can lead to side effects such as diarrhea and kidney problems. Microencapsulation of ddI can reduce the excessive use of buffers. In this work we used the ionotropic gelation technique in the preparation of chitosan microspheres. The microspheres were characterized according to the incorporation efficiency, loading capacity, degree of swelling, permeability and morphology. The best results were obtained for 10 g of chitosan/g of sodium tripolyphosphate. Subsequently, changes were carried out in the agitation system in order to optimize it. Such changes were able to improve the incorporation efficiency as well as reduce the energy consumption of the system.

KEY WORDS: AIDS, Chitosan, ddI, Didanosine, Ionotropic gelation.

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