



Pectin and chitosan microparticles as controlled release systems of nutraceuticals

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ABSTRACT

Introduction: The nutraceuticals are nutrients present in natural food with functions of drugs, which may provide health benefits, such as prevention and treatment of diseases. However, when we eat the food, only a small concentration of nutraceuticals is still active. In addition, the residence time gastric and the low permeability in the intestine also lead to the degradation of these bioactive compounds, decreasing the bioavailability of nutraceuticals. With this, several strategies were formulated to isolate and protect these bioactive molecules. Outstanding among them the microencapsulation which consists in the isolation and protection of these molecules from the microparticles obtained polymers; bioactive and biodegradable such as Pectin and Chitosan. **Objectives:** To analyse from recent studies microparticles of Pectin and Chitosan have a potential significant release of nutraceuticals. **Methodology:** Were searched for articles that examined the microencapsulação of nutraceuticals from Pectin and Chitosan, and the effects on the bioavailability of the same. **Results and Discussion:** The reviewed studies showed a potential release of nutraceuticals significant using microparticles of Pectin and Chitosan. The studies showed the benefits of nutraceuticals in the human organism. The nutraceuticals are found mainly in the form of peptides bioactive, vitamins and antioxidants, and they are of extreme importance in the prevention of chronic diseases such as cancer, cardiovascular diseases and processes associated with aging. In addition, it also showed the feasibility of the use of Pectin and Chitosan as release systems for nutraceuticals. **Conclusion:** When analyzing the articles, it was possible to conclude that the microparticles have a potential in release significant, with perspective to administration by the oral route, and also with use potential of Pectin and Chitosan as release systems for nutraceuticals and can be used to production of pharmaceuticals and new functional foods.

Keywords: Nutraceuticals. Chitosan; Pectin.

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