

Role of Natural Biodegradable Microspheres to Improve Bioavailability of Certain Anti-Anemic Drugs in Rat

Mona El Assal

Abstract

Iron deficiency anemia, the second most common cause of anemia in the elderly, usually results from chronic gastrointestinal (GI) blood loss. One of the most attractive areas of research in drug delivery today is the design of micro particulate systems (microspheres) that are able to deliver drugs to the right place, at appropriate times and at the right dosage. The ability of natural biodegradable polymers as (sodium alginate and sodium carboxymethyl cellulose) to swell and regulate the release of encapsulated certain anti anemic drugs such as (ferrous sulphate and ferrous fumarate) by controlling crosslinking makes them attractive as materials in the controlled release of drugs. The rat iron repletion test was subsequently adapted as the standard method of analysis for the availability of iron.

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