Medical and dental applications of nanomedicines.

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Abstract

Nanoparticles are tiny materials with nanosized components less than 100 nm in at least one dimension with physicochemical properties, which make them very attractive for medical application. These compounds have been evaluated as potential medicines for several decades. Nanotechnology has provided advances in the various fields of health sciences such as diagnosis, prevention and treatment by application of the agents named nanomedicines, including proteins, polymers, micelles, dendrimers, liposomes, emulsions, nanocapsules and nanoparticles. These materials can act as a scaffold, gene/drug delivery, tumor suppressor, conjugated with surgical implant, etc. They can also use as a nanocomposite, artificial tooth and dental caries preventing agent in the dentistry science. This current review tries to summarize recent applications of nanomedicine in the medical and dental fields.