



Preparation and characterization of baicalein loaded phytosomes: Assessment of *in vitro* parameters

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Abstract : Phytosome is a complex between natural active ingredient and a phospholipid. Further, phytosomes been applied to many popular herbal extracts or active molecules for augmenting oral dissolution. Therefore, in present investigation, orally administered Baicalein, atype of flavanoids, is poorly absorbed, and shows suboptimal dissolution. The phytosomes encapsulating baicalein (1:1 Mm) were prepared by reverse phase evaporation method followed by lyophilization. Transmission electron microscopy (TEM) analysis revealed that phytosomes were almost spherical in shape with particle size below 100 nm. The Powder ex-ray diffraction (PXRD) and differential scanning calorimetry (DSC) demonstrated that Baicalein loaded phytosomes were amorphous in nature. Amorphization of therapeutic moiety leads to improvement in dissolution. In conclusion, epigallocatechin loaded phytosomes exhibited promising results and warrant further in vitro andin vivo investigations under a set of stringent parameters for transforming in to a clinically viable products.

Key words: - Flavonoids, Phytosome and dissolution.

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