Introduction

Natural products are the prime potentials for the drugs, which have been providing novel, clinically and pharmacologically active drugs. The main source of the drug is the plant, for the plant crude drug is extracted using a suitable solvent, isolated by column fractionalisation, purified and characterized for the medical usages.

Embelin is one of the drug extracted from Embelia ribes. The name of the plant is maintained under the Botany, taxonomy classification is as follows:

- Roder: Ericales
- Family: Myrsinaceae
- Genus: Embelia
- Species: E. ribes

The plants Embelia ribes parts like fruits, leaves and root & stem bark are the main potential of the drug Embelin. The drug is separated, isolated, purified and characterized for its medical property like abdominal disorders, fungal infections, mouth ulcers, constipation and other uses. The Embelin molecule structure has many pharmacological usages. Where as the basis molecular structure of embelin is 1,4-benzoquinone, hence this base molecular structure is kept as it is and the synthesized the substituted benzoyl derivatives. Embelin substituted benzoyl derivative as per Upadhyay et al (2008) has more potential or efficacy like parent drug (embelin). Hence the derivatives of Embelin also have to be pay importance to study for its property.

In this present study the derivatives will be studied extensively by using various analytical techniques, Like Validated method for Oseltamivir in Pharmaceutical formulation as per Nagarajan et al (2009), Quantitative and Chromatographic fingerprint analysis of Embelia ribes (in churna formulations) by HPLC method as per Sudani et al (2011), RP-HPLC Assay Method for the Determination of Memantine HCl Drug Substance with Uv-Vis Detector as per Bhavil et al (2005) HPLC, UV-Vis, FT-IR and DSC. The
maximum yield of embelin from its seed at a particular harvesting time (by HPLC method) as per Pandey et al (2011) analytical estimation and analytical method Development and validation by RP-HPLC of Embelin along with, Rottlerin and Ellagic acid in Vidangadi churnas per Rakesh et al (2012). The Embelin benzoyl substituted new derivatives will be synthesized and analytical method will be developed by RP-HPLC and the method will be validated as per the current guideline requirements.

A general molecular structure of the substituted benzoyl chloride derivatives will be represented by the following structural formula.

Where the X is fluoro, chloro, bromo, iodo, nitro, methoxy derivative of substituted benzoyl chlorides (ortho, meta and para substituted).