

# Proximate analysis and quantitative estimation of gallic acid in *Quercus infectoria* Oliv. galls by HPTLC

Gouri Kumar Dash , Mohammed Tahir Ansari, Farheen Sami and Shahnaz Majeed

**ABSTRACT:** The galls of *Quercus infectoria* Oliv. (Family: Fagaceae) are commonly known as “Manjakani” by Malaysian community. It is one of the most popular traditional medicines used by the females to help regression of prolapsed uterus. The aim of this study was to perform the proximate analysis and quantitative estimation of gallic acid in the methanol extract of locally available galls of *Q. infectoria* using HPTLC. The gall powder was subjected to the quantitative determination of moisture content, ash and extractive values according British Pharmacopoeia. Preliminary phytochemical studies were performed on different extracts to find out the nature of phytoconstituents they contain. Quantitative estimation of gallic acid in the methanol extract was assessed through densitometric scanning using a TLC Scanner 3 (Camag, Switzerland) with win CATS software. The results of the preliminary phytochemical screening of various extracts revealed presence of steroids, triterpenoids, saponins, flavonoids, tannins and phenolic compounds, carbohydrates, gums and mucilages respectively in the galls. Amount of gallic acid in the sample was found to be  $0.218 \pm 0.0011\%$  w/w. The present method was validated for linearity, accuracy, precision, and specificity with reference to ICH guidelines. The developed method is capable of quantifying gallic acid in locally available samples of *Q. infectoria*.

**Keywords :** *Quercus infectoria*; proximate analysis; HPTLC; gallic acid