

**IDENTIFICATION AND QUANTIFICATION OF MAJOR CANNABINOIDS IN
AYURVEDIC PREPARATION OF MADANA MODAKAYA USING HIGH
PERFORMANCE LIQUID CHROMATOGRAPHY**



KANCHANA VIDARSHANI RATNAPALA

Dissertation submitted in partial fulfilment of the requirements for the degree of
MASTER OF SCIENCE of the UNIVERSITY OF COLOMBO, SRI LANKA

August- 2008



Abstract

Narcotic drugs are the oldest as well as the strongest analgesics or pain relieving drugs, known to humans. Since these have strong addictive qualities, most countries in the world have strict laws regarding the production and distribution of narcotics. Among the most widely used and popular narcotics are opium, morphine, heroin(Diacetyl morphine), Ganja(*Cannabis sativa* L plant), cocaine, amphetamines etc.,

Cannabis has been used as a therapeutic agent by the ayurveda system of medicine for over ten centuries. Number of medicinal preparations of ayurveda contains cannabis and Madana Modakaya is among them.

In this study, the major active ingredients of cannabis, i.e. Tetrahydrocannabinol, Cannabinol and Cannabidiol were identified in several Madana Modakaya preparations purchased from the market. The amount of Tetrahydrocannabinol and Cannabidiol in each Madana Modakaya preparation was quantified using High Performance Liquid Chromatography.