

Development of anti-inflammation and analgesic products from *Celastrus paniculatus* oil

Abstract

From the Thai folk wisdom of Chiang Dao, Chiang Mai that people commonly used *Celastrus paniculata* Willd. Seed oil (CPSO) as analgesic or anti-paralysis product without any scientific evidence data. The objectives of this study were to investigate *in vitro* and *in vivo* anti-inflammation and analgesic activity of CPSO and develop as spray and semi-solid products. The physical characteristics and column chromatography of CPSO were determined. The crude oil of CPSO and their fractions were investigated for *in vitro* anti-inflammation and analgesic activity. The crude oil of CPSO was selected to develop as spray and semi-solid anti-inflammation and analgesic products and study for their stability at 4, 25, 45, 60 degree Celsius for 3 months and also in heat cool cycles since it showed higher COX 1 and 2 inhibition than the standard diclofenac and also demonstrated no significant different of *in vitro* anti-inflammation and analgesic activity from its fractions. Anti-inflammation and analgesic spray formulation 8 (7 % of CPSO) and PEG washable ointment base (7 % of CPSO) with the incubation of CPSO not only exhibited the higher *in vitro* and *in vivo* anti-inflammation and analgesic activity than the standard diclofenac but also the good stability in all conditions and heat cool cycles with the higher satisfaction among 30 volunteers than the commercial products. This present study has suggested the spray formulation 8 and PEG washable ointment base (7 % of CPSO) with the incubation of CPSO to be developed as potential anti-inflammation and analgesic products.