E2-60 Anti-inflammatory active agents from *Zanthoxylum rhesta*

H R W Dharmaratne, H M S A Herath
(*Natural Products Programme, Institute of Fundamental Studies, Kandy*)

Genus *Zanthoxylum* of the family Rutaceae consists of 275 species worldwide and most of them are trees, shrubs or climbers. In Sri Lanka only three species are reported and *Zanthoxylum caudatum* is claimed to be endemic but very rare in nature. *Z. rhesta* and *Z. tetraspermum* are the other two species found in Sri Lanka and India. The fruit of the latter two are claimed to be used as stimulant, astringent and digestive. It is prescribed for dyspepsia, some forms of diarrhoea and rheumatism. Though *Zanthoxylum* species is not a common medicinal plant in Sri Lanka, literature revealed that genus *Zanthoxylum* exhibits a variety of biological activities such as anti inflammatory, anti malarial, anti leukaemic and anti-platelet aggregation. Prompted by these reports and as a part of our continuing search on bioactive compounds from Sri Lankan plants, we have undertaken the biochemical investigation of *Zanthoxylum* species in Sri Lanka.

Zanthoxylum rhesta locally known as Katukeena is, a tree that grows in Rattota area of the Matale district. The matured stem bark was dried, chopped and extracted successively with hot hexane, EtOAC and MeOH. Chromatographic separation of the hexane extract gave a white crystalline compound as the major

product and some UV active compounds. Major product was crystallized to give white needles of mp 208-210 °C. CIMS, ^{1}H NMR and ^{13}C NMR indicated that the major compound was lupeol. Recently anti-inflammatory activity of lupeol was reported and isolation of a higher amount of an anti-inflammatory activity compound from *Zanthoxylum rhesta* gives a good explanation for the anti-inflammatory activity of *Zanthoxylum* species.