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/ ISOSAKURANETIN / TAMARIXETIN

KANITTA THAKONG: A STUDY ON THE ANTIMALARIAL  
CONSTITUENTS AND CHEMICAL COMPOSITION OF *EUPATORIUM*  
*ODORATUM* (LINN). THESIS ADVISORS : AIMON SOMANABANDHU, Ph.D.,  
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A study on antimalarial activity and chemistry was carried out on the leaves of *Eupatorium odoratum* (L). collected from three different areas of Thailand, namely Rayong, Kanchanaburi and Bangkok. The ethanolic extracts of all three specimens were found to be active against *Plasmodium falciparum* *in vitro* cultures with the minimal inhibitory concentration (MIC<sub>S</sub>) of 25-50 µg/ml. The sample of *E. odoratum* collected from Kanchanaburi was selected for further study and was successively extracted with hexane, ether, chloroform, ethyl acetate and ethanol. The result of the *in vitro* antimalarial testing of these extracts indicated that the ether and chloroform extracts were the most active fractions with the MIC<sub>S</sub> values of 12.5 and 6.25 µg/ml, respectively. Bioassay guided fractionation of the ether extract resulted in the identification of a fraction F5 as having the highest antimalarial activity with a MIC<sub>S</sub> value of 1.56 µg/ml. Further fractionation of fraction F5 yielded compound A as the major constituent. This compound was identified by spectroscopic means to be 'isosakuranetin'. Isosakuranetin showed no activity against *Plasmodium falciparum* at the concentration of 5 µg/ml.