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Chemical constituents and their biological activities from *Artocarpus tonkinensis*, a traditional medicinal plant

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Artocarpus tonkinensis A. Chev. ex Gagnep., occurs in North Vietnam and China. The decoction of its leaves have been for long time used in Vietnamese traditional medicine (VTM) for the treatment of arthritis and backache. Intraperitoneal injections of *A. tonkinensis* extract decreased both arthritis incidence and severity and delayed disease onset in rats with collagen-induced arthritis^[1]. Due to its promising pharmacological properties, we focused on the phytochemical studies of *Artocarpus tonkinensis* (AT) leaves for possible use in alternative medicine. Two auronol glucosides hovetrichoside C (maesopsin 4-O-b-D-glucoside, TAT2, 1), alphonin-O-b-D-glucoside (2) and flavonoids including artonkin-4'-O-b-D-glucopyranosid (3), kaempferol (4), astragalin (5), kaempferol 3-rutinoside (6), kaempferol 3-neohesperidoside (7) and afzelechin-(4a*8^o)-catechin-3-O-b-D-glucopyranoside (8) were isolation and structural identified from aqueous 70% ethanolic leaf extract. The main compounds TAT2 has shown potent anti-proliferative and anti-inflammatory effects both *in vitro* and *in vivo*^[1]. Kaempferol, quercetin, and their glycosidic derivatives are considered potent antioxidants, anti-inflammatory ubiquitously distributed in plants. The anti-inflammatory activity of AT may be attributed to its total flavonoids 1-8. These results suggest that AT can inhibit the inflammatory response and may represent a potential therapeutic candidate for the treatment of chronic inflammatory diseases.

Biography

Trinh Thi Thuy, Ph.D., completed her Chemical doctor degree at the Institute of Chemistry (ICH), Vietnam Academy of Science and Technology (VAST). Her Ph.D. in Phytochemistry at the Institute of Plant Biochemistry in Halle/S, Germany. She is the head of Natural Products Research Laboratory at the ICH, VAST. She has published more than 20 papers in peer-reviewed international journals.

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