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N-acetyldopamine dimers with anti-platelet aggregation activity from *Oxya chinensis sinuosa*

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Recently, researches for novel food and medicinal materials have focused on insect resources. Grasshoppers (*Oxya chinensis sinuosa* Mistshenko) have been utilized as an edible insect in Asia and have been used to treat cough, asthma, bronchitis, paralysis and seizures. The aim of this study was to identify previously unreported bioactive anti-platelet compounds from this insects. Chemical investigation of the *O. chinensis sinuosa* led to the isolation of two new and known N-acetyldopamine dimers. The structures of compounds including absolute configurations were determined by 1D and 2D NMR, High-resolution electrospray ionisation mass spectrometry (HRESIMS) and Circular dichroism (CD) spectroscopic data analysis. All isolated compounds were evaluated for their anticoagulant activity by monitoring clotting and bleeding time, the activated partial thromboplastin time (aPTT) and Prothrombin time (PT). Compounds were shown to have platelet aggregation inhibitory activities. Collectively, these results show that compounds could serve as candidates and provide scaffolds for the development of new anti-platelet drugs.

Biography

InWha Park is a Graduate from the Department of Herbal Resources at Joongbu University, South Korea and has completed her Master's Degree from the College of Pharmacy at Chungnam National University, South Korea. She has studied in the Pharmacognosy Laboratory at the College of Pharmacy, Chungnam National University. Her research interest is in the isolation and structure determination of secondary metabolites from natural products that include insects and marine organisms.

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