Antiplatelet Activity of Curcuma longa L. Rhizome-Isolated ar-Turmerone

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The antiplatelet activities of Curcuma longa rhizome-derived materials were measured using a platelet aggregometer and compared with those of aspirin as antiplatelet agent. The active constituent from the rhizome of Curcuma longa L. was isolated and characterized as ar-turmerone by various spectral analyses. At 50% inhibitory concentration (IC50) value, ar-turmerone was effective in inhibiting platelet aggregation induced by collagen (IC50, 14.4 mM) and arachidonic acid (IC50, 43.6 μM). However, ar-turmerone had no effect on platelet activating factor or thrombin induced platelet aggregation. In comparison, ar-turmerone was significantly more potent platelet inhibitor than aspirin against platelet aggregation induced by collagen. These results suggested that ar-turmerone could be useful as a lead compound for inhibiting platelet aggregation induced by collagen and arachidonic acid.

Reference


3. Dinerman, J. L., Mehta, J. L. Endothelial, platelet and leukocyte interactions in ischemic heart disease: insights into potential mechanisms and their clinical