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• 計畫英文名稱	Studies on the Constituents of Chrysanthemum morifolium and C. indicum with Cardiovascular Effects.
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• 中文關鍵字	菊花；菊科植物；降血壓；心臟血管作用；野菊花
• 英文關鍵字	Chrysanthemum morifolium；Compositae plant；Hypotensive；Cardiovascular effect；Chrysanthemum indicum
• 中文摘要	近年來一些抗高血壓製劑以含菊花爲主,包括眾知之菊花降壓片,杭菊山楂,延胡煎劑已被報告具有不同程度之降血壓作用以及改善自發性高血壓及慢性腎態高血壓症狀。菊花爲 Chrysanthemum morifolium 及 Chrysanthemum indicum(菊科)之頭狀花序,用於冠狀動脈疾病及高血壓,然而其有效成分及作用機轉尙未所知,爲我們系統地研究台灣植物藥草其降血壓作用之延伸,於此將報告對菊花、野菊花活性成分之研究。依初步藉自發性高血壓老鼠及正常老鼠之生物活性測定結果指出菊花之降血壓活性較野菊花爲優。以蒸餾水於室溫萃取菊花,藉生物活性測試爲偵測,從其水抽出物,以接合使用多葡聚糖膠體,多孔性聚苯乙烯樹脂及碳十八逆相層析管柱,分離得到一降血壓成分,其經由氫,碳-核磁共振光譜分析及酸水解反應,此活性化合物之構造定爲黃色黃素-七-氧葡萄配糖體。有關該化合物之降血壓轉將進一步研究。
• 英文摘要	In recent years, some antihypertensive prescriptions containing chiefly chrysanthemi fols, including the most well-known juming Antihypertensive tablet and Huaiju Shanha Yanzhu Decoction, have been reported to lower blood pressure to different extents and to improve symptoms in essential hypertension and chronic renal hypertension. Chrysanthemi fols are referred to the capitulum of Chrysanthemum morifolium and Chrysanthemum indicum (Compositae), and used to cure coronary disease and hypertension. However, their effectual constituents and mechanism are unknown yet. As the extension of our systemic investigation on the antihypertensive effect of Formosan plants and herbs, we wish to report our study in the active constituents of C. morifolium and C. indicum. Results of preliminary bioassay on spontaneously hypertensive rats (SHR) and normal rats (WKY) indicate that the

antihypertensive activity of C. morifolium is better than that of C. indicum. The flowers of C. morifolium was extracted with distilled water at room temperature. Using bioassay as monitor, an antihypertensive constituent from the aqueous extract was isolated by a combination of polydextran, high porous polysyrene and ODS column chromatography. Based on the analyses of NMR, NMR spectra and acidic hydrolysis, the structure of active compound was characterized as luteolin 7-O-.beta.-D-glucoside. The mechanism involved in antihypertensive action of 1 will be further studied.