



Lignans from *Trachelospermum jasminoides* and Synergistic Antifungal Activity

Liang-Jun GUO¹, Li-Ping XU¹, Wei ZHENG¹, Jia-Xiao DONG^{1,2},
Xian-Hui YI³ & Yong-Sheng JIN^{2*}

¹ Department of Pharmacy, No. 98 Hospital of PLA / PLA 98th Clinical College of Anhui Medical University, Huzhou, Zhejiang Province, China, 313000 / Hefei, Anhui Province, China, 230032

² School of Pharmacy, Second Military Medical University, Shanghai, China, 200433

³ Liwah Pharmaceutical Co., Ltd. Zhenhai branch, Ningbo, China, 315200

SUMMARY. The vines of *Trachelospermum jasminoides* (Lindl.) Lem. is used in folk medicine as aching of the waist and knee and traumatic injuries. This study isolated the lignans of leaves and stems and evaluated for their synergistic antifungal activity with fluconazole against fluconazole-resistant *Candida albicans* 103 *in vitro*. Seven lignans were isolated from the leaves and stems of *T. jasminoides*. The dimethylmatairesinol (**7**) was isolated from this genus for the first time. The results of synergistic antifungal activity with fluconazole against *C. albicans* 103 showed that all compounds except **2** and **7** exhibited good synergy in combination with fluconazole. Of these active compounds, **1**, **5** and **6** (FICI = 0.125) showed more potent synergistic antifungal effects than baicalein (FICI = 0.188).

RESUMEN. Las vides de *Trachelospermum jasminoides* (Lindl.) Lem. se utilizan en medicina popular para aliviar el dolor de cintura y rodilla y lesiones traumáticas. Este estudio aisló los lignanos de hojas y tallos y evaluó su actividad antimicótica sinérgica con fluconazol contra *Candida albicans* 103 resistente a fluconazol *in vitro*. Se aislaron siete lignanos de las hojas y tallos de *T. jasminoides*. El dimetilmatairesinol (**7**) se aisló de este género por primera vez. Los resultados de la actividad antimicótica sinérgica con fluconazol contra *C. albicans* 103 mostraron que todos los compuestos, excepto **2** y **7** presentaban buena sinergia en combinación con fluconazol. De estos compuestos activos, **1**, **5** y **6** (FICI = 0,125) mostraron efectos antimicóticos sinérgicos más potentes que la baicaleína (FICI = 0,188).

KEY WORDS: antifungal activity, lignans, synergy, *Trachelospermum jasminoides*.

* Author to whom correspondence should be addressed: Yong-Sheng JIN. E-mail: ysjnsmmu@163.com