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Antihyperalgesic activity of verbascoside in the chronic constriction injury of the sciatic nerve (CCI) and intra-articular injection of sodium monoiodoacetate (MIA) models of neuropathic pain

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- [Congress Abstract](#)

Verbascoside (acteoside) is a phenylpropanoid glycoside widely spread in nature. Different biological activities have been reported for such compound: anti-inflammatory, anti-ulcerogenic and antispasmodic activity [1], antiproliferative properties and inhibition of telomerase [2], immunomodulatory [3], antioxidant and photoprotective [4] and analgesic activities [5]. This study reports on the rapid isolation of verbascoside from *Lippia citriodora* H.B.K. (Verbenaceae), a not expensive and widespread source and its antihyperalgesic activity. Size exclusion chromatography with Sephadex LH-20, using hydroalcoholic solution (50% EtOH) is proposed as a fast and efficient method for the isolation and purification of verbascoside (purity >98% determined by HPLC/DAD/ESI MS). The antihyperalgesic activity of verbascoside was tested by *in vivo* assay, using the Paw-pressure test, in two animal models of neuropathic pain: a peripheral mononeuropathy produced either by a chronic constriction injury of the sciatic nerve (CCI), or by an intra-articular injection of sodium monoiodoacetate (MIA). Verbascoside administered intraperitoneally (i.p.) at the dose of 100mg/kg, reverted the mechanical hyperalgesia in both CCI and MIA treated rats, evaluated in the Paw-pressure test. The antihyperalgesic effect started 15min. after administration and persisted for 30-45min. Verbascoside was also effective against mechanical hyperalgesia after oral administration. At the doses of 300 and 600mg/kg p.o. reverted the hyperalgesia induced by both CCI and MIA injection: the antihyperalgesic effect started 15min after administration and was still significant at 60min.

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