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Antinociceptive Effects of Korean Dried bee Venom in the Rat Formalin Test

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Acupunture has been used for treatment of numerous disorders, especially for pain control. Bee venom (BV) acupunture, as a kind of herbal acupunture, has been reported to evoke tonic pain and hyperalgesia. In this regard, bee venom (BV) has been traditionally used to relieve pain. The present study aimed to compare the antinociceptive effects of two different BV products (Korea vs America) to be used as an animal model of pain. Fifty six male Sprague-Dawley rats (6 weeks old, 200-300g) were used. At 15 min after BV injection, formalin (50㎕/head) at 1% was subcutaneously injected into the plantar surface of the right hindpaw with a 30 G needle. Formalin injection into hindpaw causes produced licking and flinching in rats. After the formalin injection, behavioral responses (licking and flinching) were recorded for 60 min. The injection of 1% formalin produced a different levels of biphasic licking behavior of the injected hind paw in rats. BV injection into the Zusanli acupoint (St. 36) significantly reduced the pain induced licking time in the late phase (10-60 min)($P<0.05$). Both BV products do not induces antinociceptive effect in the early phase (0-5 min). But, these decreased pain behavior in the late phase (10-60 min). There are no significant differences between two products through the test. This results suggest that Korea BV might be a valuable alternative product to traditional America BV product to antinociceptive effect.

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