
Aqueous extracts from species of the Lamiaceae family were examined for their antiviral activity against HERPES SIMPLEX virus (HSV). Extracts from lemon balm (MELISSA OFFICINALIS), peppermint (MENTHA × PIPERITA), prunella (PRUNELLA VULGARIS), rosemary (ROSMARINUS OFFICINALIS), sage (SALVIA OFFICINALIS) and thyme (THYMUS VULGARIS) were screened. Their inhibitory activity against HERPES SIMPLEX virus type 1 (HSV-1), type 2 (HSV-2) and acyclovir-resistant strain of HSV-1 (ACV (res)) was tested in VITRO on RC-37 cells in a plaque reduction assay. The 50% inhibitory concentrations (IC (50)) of the extracts for HSV plaque formation were determined in dose-response studies. All test compounds showed a high antiviral activity against HSV-1, HSV-2 and ACV (res). In order to identify the mode of antiviral action, the extracts were added to the cells or viruses at different stages of infection. Both types of HERPES virus including ACV (res) were considerably neutralized after treatment with the extracts prior to infection. At maximum non-cytotoxic concentrations (IC (50)) of the extracts for HSV plaque formation were determined in dose-response studies. All test compounds showed a high antiviral activity against HSV-1, HSV-2 and ACV (res). In order to identify the mode of antiviral action, the extracts were added to the cells or viruses at different stages of infection. Both types of HERPES virus including ACV (res) were considerably neutralized after treatment with the extracts prior to infection. At maximum non-cytotoxic concentrations (IC (50)) of the extracts for HSV plaque formation were determined in dose-response studies. All test compounds showed a high antiviral activity against HSV-1, HSV-2 and ACV (res). In order to identify the mode of antiviral action, the extracts were added to the cells or viruses at different stages of infection.


Background: Capsicum plaster at a classical Chinese acupoint is an alternative to acupuncture, which has been used as a supplemental therapy to opioid analgesics for pain control during the postoperative period. We investigated the postoperative analgesic efficacy of capsicum plaster at Zusanli (ST-36) points after pediatric hernia repair. Aqueous extracts from species of the Lamiaceae family against Herpes simplex virus type 1 and type 2 in vitro.

Methods: Ninety women undergoing total abdominal hysterectomy were randomly assigned to 3 treatment regimens (n = 30 each): group Zusanli = PAS at Zusanli acupoints and on the shoulder. The postoperative pain scores and analgesic requirements during 24 h postoperatively were assessed. Results: Total meperidine consumption was significantly lower in group Z (0.87 ± 0.35 mg.kg⁻¹) compared with group C (1.27 ± 0.41 mg.kg⁻¹) and S (1.22 ± 0.45 mg.kg⁻¹) (P<0.001). The pain scores on both the objective pain scale (OPS) and the Children Hospital of Ontario Pain Scale (CHEOPS), were significantly lower in group Z compared with the other groups at 6 and 24 h postoperatively, but not at the 10 min and 1 h postoperative time periods.

Conclusions: Placement of capsicum plaster at the Zusanli points reduces pain and postoperative opioid consumption in children undergoing inguinal hernia repair, but not in the first six postoperative hours.


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Methods: Ninety children, aged 4 month to 9 year, undergoing unilateral hernia repair, and was randomly assigned to three treatment regimens: group Zusanli (Z) = capsicum plaster at Zusanli acupoints and placebo tape on the shoulder as a nonacupoint, group Sham (S) = capsicum plaster on the shoulders and placebo tape at Zusanli acupoints, and group control (C) = placebo tape at Zusanli acupoints and on the shoulder. The postoperative pain scores and analgesic requirements during 24 h postoperatively were assessed.

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Abstract Service

Salvia officinalis (sage) has previously been shown both to possess in vitro cholinesterase inhibiting properties, and to enhance mnemonic performance and improve mood in healthy young participants. In this double-blind, placebo-controlled, crossover study, 30 healthy participants attended the laboratory on three separate days, 7 days apart, receiving a different treatment in counterbalanced order on each occasion (placebo, 300, 600 mg dried sage leaf). On each day mood was assessed pre dose and at 1 and 4 h post dose. Each mood assessment comprised completion of Bond-Lader mood scales and the State Trait Anxiety Inventory (STAI) before and after 20 min performance of the Defined Intensity Stress Simulator (DISS). Computerized multitasking battery. In a concomitant investigation, an extract of the sage leaf exhibited dose-dependent, in vitro inhibition of acetylcholinesterase and, to a greater extent, butyrylcholinesterase. Both doses of sage led to improved ratings of mood in the absence of the stressor that is, in pre-DISS mood scores) post dose, with the lower dose reducing anxiety and the higher dose increasing ‘alertness’, ‘calmness’ and ‘contentedness’ on the Bond-Lader mood scales. The reduced anxiety effect following the lower dose was, however, abolished by performing the DISS, with the same dose also being associated with a reduction of alertness during performance. Task performance on the DISS battery was improved for the higher dose at both postdose sessions, but reduced for the lower dose at the later testing session. The results confirm previous observations of the cholinesterase inhibiting properties of S. officinalis and improved mood and cognitive performance following the administration of single doses to healthy young participants.

Study participants: In two study parts, a total of 286 patients with subjective and objective evidence of pharyngitis were enrolled. In the first study part 122 patients were enrolled. In the second study part 164 patients were included. The treatment duration per patient was 3 days, including one baseline visit and one final visit.

Main outcome measures: Area under the curve for change of throat pain intensity (spontaneous pain), documented every 15 min within the first 2 h after the first application as compared to baseline using a visual analog scale (VAS 100 mm).

Results: Following the interim analyses of the first study part the 15% spray containing 140 µg sage extract per dose was the most promising preparation for the second study part (main study) whereas for the 30% and the 5% preparation results made superiority over placebo unlikely in the final analysis. Overall, the 15% spray was significantly superior to placebo for the primary efficacy variable with regard to a reduction of the throat pain intensity score. Only minor side effects such as dry pharynx or burning of mild intensity were seen.

Conclusions: The efficacy and tolerability profile of a 15% sage spray indicated that this preparation provides a convenient and safe treatment for patients with acute pharyngitis. A symptomatic relief occurred within the first 2 h after first administration and was statistically significantly superior to placebo.