Research Highlights

Shalini Rao

Follow this and additional works at: https://ijrh.researchcommons.org/journal

Part of the Homeopathy Commons
Research Highlights

Abstract

-
## Research highlights

### Homoeopathy — Most Frequently Used Treatment Option in Small Animal Medicine

**Title:** Application of veterinary naturopathy and complementary medicine in small animal medicine — A survey among German veterinary practitioners

**Authors:** Ines Stanossek, Axel Wehrend

**Journal:** PLoS One, DOI: 10.1371/journal.pone.0264022

**Summary:** Recent studies have shown a rapid increasing interest of veterinary naturopathy along with complementary medicine. However, to describe this state in Germany, the data are still lacking. The present study aimed at addressing the issue by identifying the present treatment indications, modalities, information pathways and existing qualifications. The study records the advantages and disadvantages of the various modes of treatments as experienced by the veterinarians through demographic influence. A cross-sectional survey was conducted using a standardised questionnaire. From 1087 questionnaires, 870 were evaluated. From the literature reviews, the most used treatments were as follows: Homoeopathy, traditional Chinese medicine, phyotherapy, manual treatments, biophysical treatments, Bach flower remedies, homotoxicology, neural therapy, organotherapy and hirudotherapy. Mann–Whitney U-test and the exact Fisher’s test were used to calculate the impact observed through demographic data. Homoeopathy emerged to be the most frequently used treatment option high potential.

**Comments:** Not only in human population but also in veterinarians, homoeopathy has proved to be beneficial and remains the preferred choice over other modes of treatment worldwide.

### Anti-leishmanial Efficacy of LdAPN 30C — A Homoeopathic Nosode

**Title:** Evidence for Reversal of Immunosuppression by Homoeopathic Medicine to a Predominant Th1-type Immune Response in BALB/c Mice Infected with Leishmania donovani

**Authors:** Jyoti Joshi, Chetna Bandral, Raj Kumar Manchanda, Anil Khurana, Debadatta Nayak, Sukhbir Kaur

**Journal:** Homoeopathy, DOI: 10.1055/s-0041-1727170

**Summary:** The study highlights immunomodulatory potential and the anti-leishmanial activity of a proposed homoeopathic nosode, ‘LdAPN 30C’ (Leishmania donovani promastigote and amastigote Nosode), in the experimental VL. The nosode was prepared from pure, axenic culture of the Leishmania donovani and its further screening was done in both, *in vitro* and *in vivo*, to analyse its anti-leishmanial potential.

In this study, the growth inhibition percentage was assessed against the promastigotes of *L. donovani* treated with different dilutions of LdAPN 30C. It was also observed that the nosode killed about 93% parasites at 256 µL/mL dilution, showing remarkable anti-leishmanial potential. The nosodes, LdAPN 30C, were successfully efficacious in controlling the experimental VL in mice, increased levels of IL-17, IFN-γ and NO, shift was seen in the immune response, from non-protective Th2 to protective Th1 type and remarkable potential against VL.

**Comments:** Insufficiency of reliable drugs, absence of human vaccine and the spread of this disease to non-endemic regions highlight the requirement of better treatment options for such conditions. Homoeopathic nosodes can be a beneficial option to intercept conditions like leishmaniasis.

### Vitamin D Supplementation for COVID-19

**Title:** Short-term, high-dose Vitamin D supplementation for COVID-19 disease: A randomised, placebo-controlled and study (SHADE study)

**Authors:** Ashu Rastogi, Anil Bhansali, Niranjan Khare, Vikas Suri, Narayana Yaddanapudi, Naresh Sachdeva, G D Puri, Pankaj Malhotra

**Journal:** Postgraduate medical journal, doi:10.1136/postgradmedj-2020-139065

**Summary:** This randomised placebo-controlled study was conducted to explore the role of Vitamin D intervention. Although Vitamin D is known for its immunomodulatory role, still the therapeutic effect of Vitamin D supplementation in people infected with SARS-CoV-2 remains unknown. Asymptomatic or patients with mild symptoms with SARS-CoV-2 RNA positive with deficient Vitamin D (25(OH)D<20 ng/ml) were included in the study. The participants received cholecalciferol 60,000 IU for 7 days along with the therapeutic target of participants were randomised to receive daily 60,000 IU of cholecalciferol (oral nano-liquid droplets) for 7 days with 25(OH)D>50 ng/ml (intervention group) and placebo (control group). 25(OH)D levels were estimated at the 7th day whereas cholecalciferol supplementation was continued for patients with 25(OH)D <50 ng/ml in the intervention group.

In this study, 40 SARS-CoV-2 RNA-positive individuals were randomised. Out of that, 16 were taken to the intervention group and 24 were recruited in the control group. Baseline serum 25(OH)D was 8.6 (7.1–13.1) and
9.54 (8.1–12.5) ng/ml ($P = 0.730$), in the intervention and control group, respectively. Ten out of 16 patients could achieve 25(OH)D>50 ng/ml by day-7 and another two by day-14 [day-14, 25(OH)D levels 51.7 (48.9–59.5) ng/ml and 15.2 (12.7–19.5) ng/ml ($P<0.001$)] in the intervention and control group, respectively. Ten (62.5%) participants in the intervention group and 5 (20.8%) participants in the control arm ($P < 0.018$) became SARS-CoV-2 RNA negative. It was seen that fibrinogen levels significantly decreased with cholecalciferol supplementation (intergroup difference 0.70 ng/ml; $P = 0.007$) unlike other inflammatory biomarkers.

Comments: Cholecalciferol supplementation in patients infected with SARS-CoV-2 showed a remarkable improvement by turning SARS-CoV-2 RNA negative along with a significant decrease in the inflammatory markers as well.

**Individualised Homoeopathic Medicines in Plantar Fasciitis**

**Title:** Efficacy of individualised homoeopathic medicines in plantar fasciitis: A double-blind, randomised, placebo-controlled clinical trial

**Authors:** Sana Shahid, Shubhamoy Ghosh, Ardhendu Shekhar Chakraborty, Shukdeb Maiti, Satarupa Sadhukhan, Munmun Koley, Subhraniel Saha

**Journal:** Homoeopathy, DOI: 10.1055/s-0041-1731383

**Summary:** A randomised double-blind, placebo-controlled trial was conducted at the OPDs of Mahesh Bhattacharyya Homoeopathic Medical College and Hospital, West Bengal, India. For the outcome measure, the Foot Function Index (FFI) questionnaire was administered at the baseline and every month up to 3 months. The group differences (unpaired $t$-tests) and the effect sizes (Cohen’s $d$) were calculated using intention-to-treat sample. At every time point, difference among the groups for total FFI% score favoured the IHMs against the placebo, at the 1st month (mean difference, $−10.0$; 95% confidence interval [CI], $−15.7$–$−4.2$; $P = 0.001$; $d = 0.8$); at month 2 (mean difference, $−14.3$; 95% CI, $−20.4$–$−8.2$; $P < 0.001$; $d = 1.1$) and at the 3rd month (mean difference, $−23.3$; 95% CI, $−30.5$–$−16.2$; $P < 0.001$; $d = 1.5$). Significant results were observed at 3 FFI sub-scales (pain%, disability% and activity limitation %). The frequently prescribed homeopathic medicines were *Natrum muriaticum* ($n = 14$; 18.7%), *Rhus toxicodendron* and *Ruta graveolens* ($n = 11$ each; 14.7%) medicines. IHMs acted comparably better than the verum in the treatment of PF.

**Comments:** Use of standardised scales and appropriate comprehensive parameters helps in validating the study to a greater level. Similar studies with a larger sample size must be conducted to support the efficacy of individualised homoeopathic medicine(s).

**Chimaphila Umbellata on Human Breast Cancer Cells**

**Title:** Chimaphila umbellata extract exerts antiproliferative effect on human breast cancer cells through RIP1K/RIP3K-mediated necroptosis

**Authors:** Neeladrisingha Das, Subhashish Samantaray, Chandrachur, GhoshKomal Kushwaha Debabrata Sircar, Partha Roy


**Summary:** For homeopathic preparation of Chimaphila umbellata, the roots and leaves of the plant are used. This study interrogates the apoptotic and antiproliferative effects of the Chimaphila umbellata mother tincture on the cell lines of human breast cancer. For the evaluation of the time-dependent and dose-dependent toxicity of the Chimaphila extract in HEK293 and MCF-7 cells, MTT assay was used. Wound healing and clonogenic assays were used for the evaluation of antiproliferative effect, whereas to study the antiangiogenic drug activity chick chorioallantoic membrane assay. For analysing the mode of cell death, PI staining and Annexin V assay by flow cytometry were used. In addition to this, expression patterns of the associated genes were assessed using the immunoblot analysis. CU extracts produced antiproliferative effect in the MCF-7 cells, further inhibiting their migration and growth. Significant antiangiogenic ability was also demonstrated from the extract, which limited growth of new blood vessels and also development in the chick embryos. The extract promotes the caspase-independent necroptosis with an involvement of RIP1/RIP3 kinases along with MLKL proteins.

**Comments:** As per the homeopathic literature, Chimaphila umbellata exhibits great potential in preventing breast cancer. This study supports this knowledge and also warrants further *in vivo* investigations.

**Antinociceptive Activity of Bacopa Monnieri**

**Article Title:** Antinociceptive activity of standardized extract of *Bacopa monnieri* in different pain models of zebrafish

**Journal:** Journal of Ethnopharmacology, doi.org/10.1016/j.jep.2021.114546

**Authors:** Mahima Sharma, Pankaj Kumar Gupta, Pankaj Gupta, Debapriya Garabadu

**Summary:** *Bacopa monnieri* which is commonly known as Brahmi has been traditionally used as a neuroprotective medicine. In this *in vivo* study, methanolic extract of *Bacopa monnieri* was standardised to a chromatographic method called bacoside. Later, the “antinociceptive” potential of
the methanolic extract of *Bacopa monnieri* L. (0.75, 1.25, 2.5 and 5.0 mg/ml) was evaluated using an adult zebrafish, as a pain model. Standardised *Bacopa monnieri* extract exhibited antioxidant effect through the radical quenching activity. The extract of *Bacopa monnieri* at 1.25 mg/ml significantly lowered the nociceptive effect produced by various harmful agents like acetic acid. However, when compared to control and sham group, *Bacopa* extract at 2.5 mg/ml showed significant antinociceptive activity against various agents such as formalin, capsaicin, glutamate and cinnamaldehyde.

**Comments:** This experimental study exhibits the antinociceptive activity of the methanolic extract of *Bacopa monnieri*, therefore, suggesting its therapeutic potential in the management of neuropathic pain.