

Pharmaceutical standardization- Safety, efficacy and pharmacokinetic evaluation of a traditional Unani formulation: *Jawarish-e-bisbasa*

Sunita Shailajan
Ramnarain Ruia College, India

Jawarish-e-Bisbasa; a Unani formulation, is prescribed for the clinical treatment of a wide range of gastrointestinal disorders. Though the formula composition and therapeutic claims of *Jawarish-e-Bisbasa* are part of National Formulary of Unani Medicine, the scientific methods for its quality, safety and efficacy are yet to be documented. Hence, this study is an attempt to develop some quality control tools for *Jawarish-e-Bisbasa*. SOPs for the preparation of *Jawarish-e-Bisbasa* was developed by the amalgamation of traditional methods and scientific tools. Preliminary phytochemical and physicochemical evaluation of *Jawarish-e-Bisbasa* was carried out. Chromatographic standardization of *Jawarish-e-Bisbasa* was carried out using HPTLC wherein the content of eugenol in the formulation and its ingredients was determined. The method was also found applicable for evaluation of stability of the formulation. Safety of the formulation was affirmed in mice and its anti-ulcer potential was evaluated using indomethacin induced acute experimental gastric ulcer in albino Wistar rats. The findings were also compared with modern anti-ulcer drug omeprazole. Pharmacokinetic evaluation of the formulation was carried out using piperine as a marker in rabbit plasma using validated HPLC method. The quality control parameters resulted from the scientific evaluation of *Jawarish-e-Bisbasa* can be used as reference standards by quality control/assurance unit of a pharmaceutical firm in order to have proper quality check over its preparation and processing. Findings of the present study will be used as a tool for scientific validation of this Unani formulation and add as a scientific support for its global acceptance.

Biography

Sunita Shailajan, a recognized guide for Ph.D. in Botany and Bioanalytical Sciences, has her specialization in areas like development of 'QC' methods and preclinical studies for the raw materials and final herbal/ASU formulations and phytochemical extraction techniques. She is working on projects related to herbal medicines for menopausal problems (with North Eastern Hill University, Shillong) and *Mycobacterium tuberculosis* (with BARC unit). She is an Associate Professor in Botany, Convener of Research and heads the Herbal Research Lab and Animal Testing Centre at Ramnarain Ruia College. Her name is included in the 2007th edition of Marquis Who's Who for my contribution in industry projects. She has received top reviewer award in 2011 from Journal of Ethnopharmacology (Elsevier). She has been awarded "Best Teacher" title and a special scholarship for her contribution in Industry Academia Linkage in Ruia College. She has published 70 research papers in the journals of high repute and has 2 patents to her credit with Marico Industries.

sunitashailajan@gmail.com

Low-level polarized light-acupuncture reduces the formalin evoked nociceptive response in mice

Zinaida Andreevna Tamarova
Bogomoletz Institute of Physiology, Ukraine

This work proves that exposure of acupuncture points (APs) to low-level white or color polarized light (PL) evokes a statistically significant reduction of tonic pain in mice (formalin test). The duration of formalin-evoked lick-ing of the painful area during 60 min of observations was calculated in control mice and mice exposed to PL (at once after formalin injection). A BIOPTRON Compact (Switzerland) was used as a light source (480-3400 nm, polarization up to 95%, 40 mW/cm², 2.4 J/cm²). The color filters (Switzerland) permitted us to receive one of the six color lights. It was shown that the action of PL on the APs caused significant analgesia which depends on the duration of PL application on the choice of the zone of exposure and on the light wavelength (color). Among tested APs (E-36, V-56 or V-60) the most effective was AP E-36. Exposure of the AP E-36 to white, red, violet, blue, orange, yellow or green PL decrease the licking time up to 50%, 54.4%, 46.3%, 39.8%, 37.7%, 37.2% and 36.1% respectively. Exposure of skin that did not contain analgesic APs to PL did not evoke significant effect. Special experiments give proofs that analgesia is caused not by thermal effect of PL.

Conclusion: Low-level white and color PL applied to APs statistically significantly decrease formalin-evoked pain and the red light is the most effective.

Biography

Zinaida Andreevna Tamarova has completed her Ph.D. at the age of 29 years from A. A. Bogomoletz Institute of Physiology, National Academy of Sciences of Ukraine, Kiev, Ukraine. Now she is Senior Research Associate of the same Institute. Since many years she has been studying the mechanisms of the pain and anesthesia. Her main research interest is non-medicament methods of pain suppression. She has published more than 50 papers in reputed journals and is co-author of 3 scientific monographs.

tamar@biph.kiev.ua