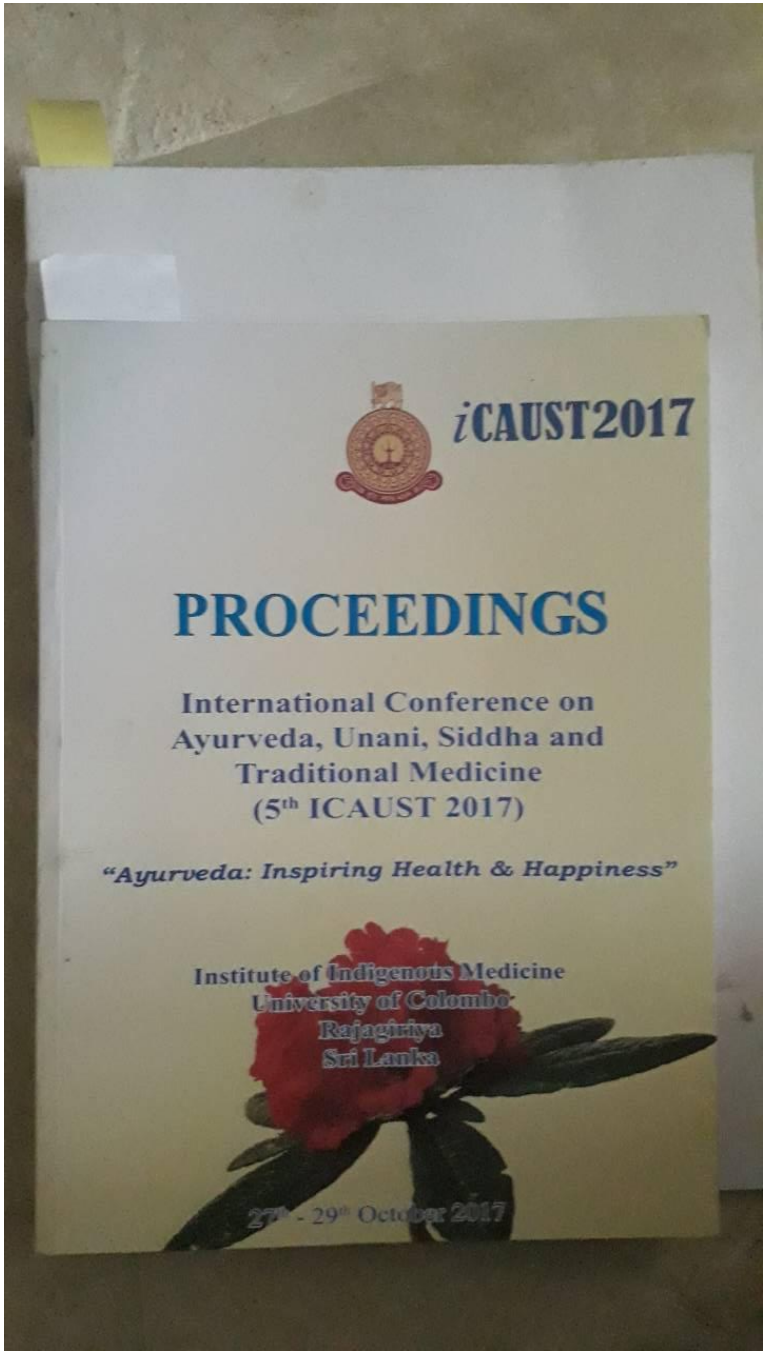
iCAUST2017
PROCEEDINGS
International Conference on
Ayurveda, Unani, Siddha and
Traditional Medicine
(5th ICAUST 2017)
"Ayurveda: Inspiring Health & Happiness"
Institute of Indigenous Medicine
University of Colombo
Rajagiriya
Sri Lanka

CHRONIC ANTI-INFLAMMATORY EFFECT OF SUDARSHANA SUSPENSION ON ADJUVANT-INDUCED ARTHRITIS IN RATS

WASS Weerakoon[1#], PK Perera [2], D Gunasekera [3], TS Suresh[4]

[1]Department of Ayurveda Paediatrics, Institute of Indigenous Medicine, University of Colombo, Sri Lanka
[2]Department of Ayurveda Pharmacology and Pharmaceutics, Institute of Indigenous Medicine, University of Colombo, Sri Lanka
[3]Department of Paediatrics, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka
[4]Department of Biochemistry, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka

#sarojaweerakoon@yahoo.com

Sudarshana powder (SP) is a very effective anti-pyreticAyurvedic preparation, extensively used in Sri Lanka as well as India. This contains 53 ingredients with Andrographis paniculata Burm. F. Nees as the main component (50%). The extreme bitterness of this powder reduces the patient compliance and administration to children is difficult. Therefore, this powder was developed into a user-friendly standard Ayurveda suspension. The aim of the present study was to evaluate the effect of Sudarshana suspension (SS) on the progression of adjuvant-induced arthritis in rats. Arthritis was induced by a single intra-dermal injection of 0.1ml of Freund's Complete Adjuvant (FCA) containing 0.05% w/v *Mycobacterium butyricum* suspension into the foot pad of the left hind paw of four groups of Wistar rats. Group I was used as the healthy control group. Group II composed of arthritic rats who received distilled water. Group III was arthritic animals treated with a standard non-steroidal anti-inflammatory drug Celecoxib (5 mg/kg) and Group IV was arthritic animals who received SS (4ml/kg). Flowing induction of arthritis, daily oral treatment was started on day 14 and continued up to day 28. Body weight (BW), hind paw ankle joint thickness (AJT) and foot pad thickness (FPT) were measured in all animals using dial calliper on Day 0 (before injection of FCA emulsion) and on Days 3, 7, 10, 14, 17, 21, 24 and 28 after the injection of the adjuvant. Full blood count was tested on day 28.Induction of arthritis significantly increased FPT, AJT and loss of BW. Treatment with SS and standard drug Celecoxib in the arthritic animals produced significant reductions ($p < 0.001$) in FPT, AJT, WBC count, reduction of erythema and oedema in the ankle joints and foot pad of the AIA rats. Further, the BW was normalized. It is concluded that SS possesses anti-inflammatory effects on arthritis.

Keywords: Arthritis, Ankle joint thickness, Foot pad thickness