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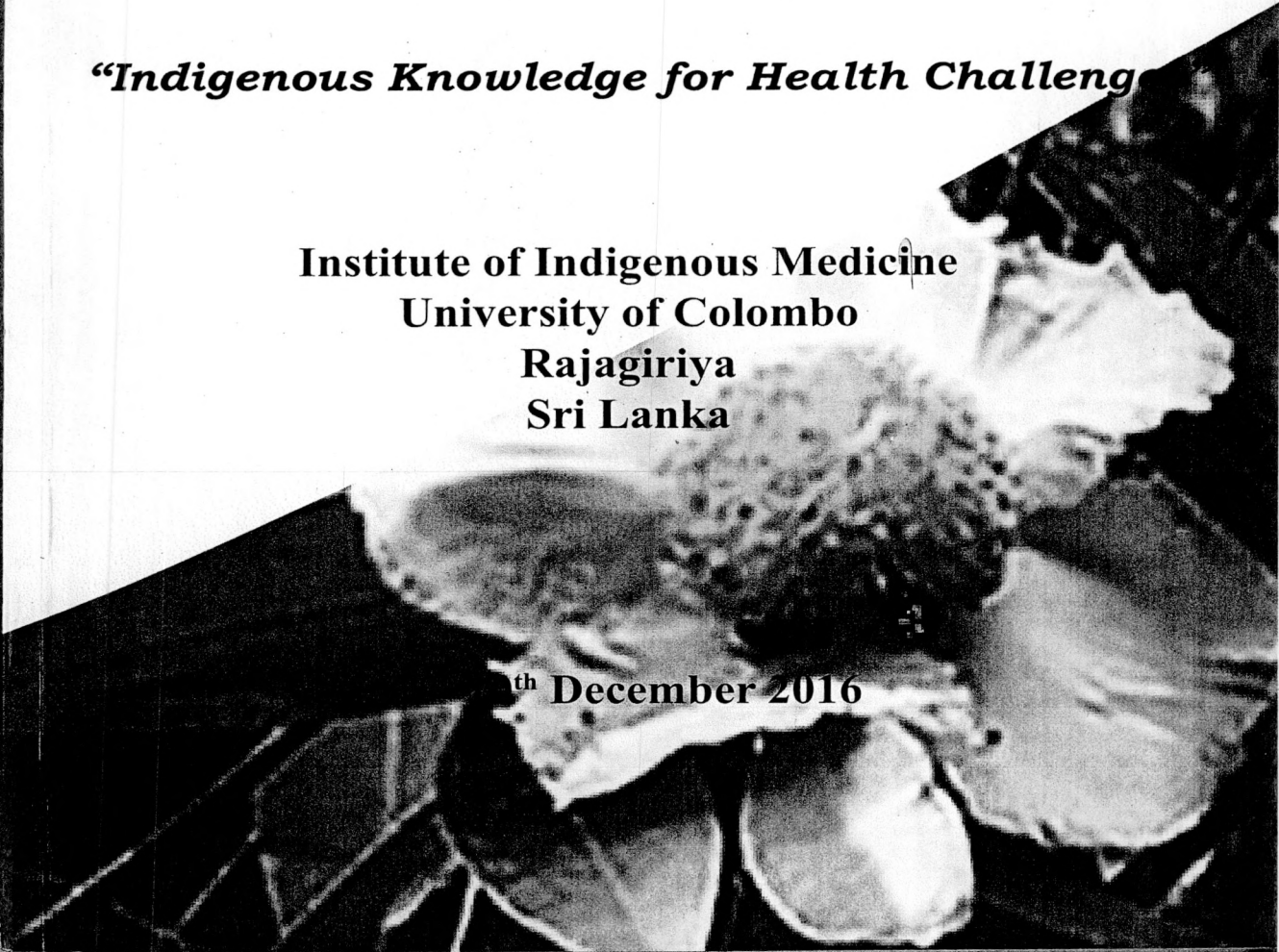
PROCEEDINGS

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**CHRONIC ANTI-INFLAMMATORY ACTIVITY OF BEES' HONEY ON
ADJUVANT-INDUCED ARTHRITIS IN RATS**

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The ancient *Vedic* civilization considered bees' honey as one of nature's most remarkable gifts to mankind. Honey has been given a valued place in traditional medicine for centuries. The usage of bees' honey as a medicine is referred to in the most ancient Ayurveda medical records. The aim of this study is to evaluate the efficacy of bees honey in chronic inflammations caused by adjuvant-induced arthritis in experimental rat model. 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 in sterile paraffin oil into a foot pad of the left hind paw of all groups of Wistar rats. There were four experimental groups. 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 bees' honey (4ml/kg). Following 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 Day 3, 7, 10, 14, 17, 21, 24 and 28 after the injection of adjuvant. Full blood count was tested on day 28. Induction of arthritis significantly increased FPT, AJT and loss of BW. Treatment with bees' honey and standard drug Celecoxib in the arthritic animals produced significant reductions respectively $p < 0.05$, $p < 0.001$ in FPT, AJT, WBC count, reducing erythema and oedema in the ankle joints and foot pad of the AIA rats and normalized BW. Therefore bees' honey is scientifically provided traditional rationale in the treatment of chronic inflammation.

Keywords: Bees' honey, Adjuvant-induced arthritis