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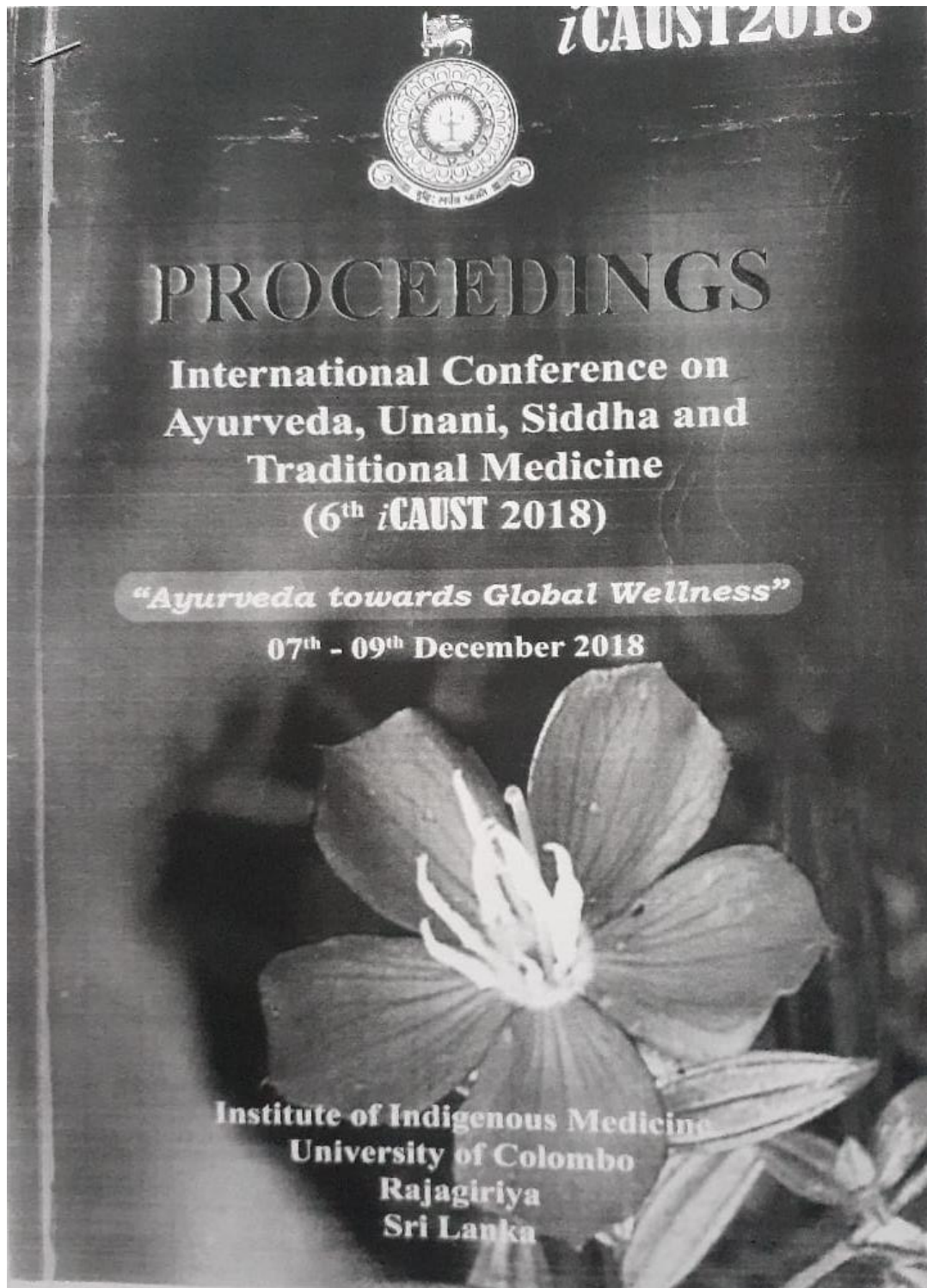
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PGE 2 EFFECT – BEES HONEY

6th ICAUST 2018 – International Conference - Abstracts

EVALUATE THE EFFECT OF PROSTAGLANDIN E₂ SYNTHESIS OF BEES' HONEY IN ANIMAL MODEL

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Bees' Honey (BH) 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 was to evaluate the prostaglandin E₂ (PGE₂) synthesis of BH by adjuvant-induced arthritic (AIA) experimental Wistar rats. Following the ethical clearance, arthritis was induced by a single intra-dermal injection of Freund's Complete Adjuvant (FCA) into a foot pad of the left hind paw of all groups of Wistar rats except in the healthy control. 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 (5mg/kg) and Group IV was arthritic animals who received BH (4ml/kg). Following induction of arthritis, daily oral treatment was started on day 14 and continued up to day 28. Prostaglandin E₂ ELISA kit- Monoclonial was used for the determination of plasma PGE₂ mechanism of BH. All animals were sacrificed on Day 29 and blood was collected for prostaglandin E₂ Enzyme-linked immune sorbent assay (ELISA). There was a significant ($p < 0.001$) increase observed in plasma PGE₂ concentrations in AIA control group, when compared to the healthy control group. The AIA rats treated with Celecoxib, showed significant ($p < 0.001$) decrease in plasma PGE₂ concentration and BH also showed significant ($p < 0.01$) decrease in plasma PGE₂ concentration. Therefore, Bees' honey down-regulates the inflammatory marker, PGE₂ in AIA rats' serum.

Key words: Arrthritis, Prostaglandin E₂, Bees' honey