Gynura Procumbens in Paediatrics

Gynura Procumbens (Lour.) Merr., a plant of the Asteraceae family, is referred to in traditional Eastern medicine as a topical anti-inflammatory remedy [1]. In Southeast Asia, Gynura plants are widely distributed. In Thailand, the Gynura plant is used externally as an anti-itch and anti-inflammatory treatment, and against the herpes virus [2]. In Singapore, Malaysia, and Indonesia, the plant has been traditionally used as a remedy for eruptive fever, rash, kidney disease, migraine, constipation, hypertension, diabetes mellitus, and cancer [3].

Antimicrobial activity

Research shows that G. Procumbens extract exhibits chemo-suppression effects toward malarial parasite strains of Plasmodium falciparum 3D7 and Plasmodium berghei NK65; possibly via direct inhibition of GSK3 or indirect action on pi3K/Akt pathway. Furthermore, the ethanolic extract from the aerial parts of the plant has been demonstrated to exhibit virucidal and antireplicative activity against the herpes simplex virus HSV-1 and HSV-2. This notion was validated in a clinical trial that was conducted on patients who experienced recurrent herpes labialis, in which treatment with G. Procumbens herbal gels was found to reduce the number of patients infected with HSV [4]. Meanwhile, the antibacterial action of G. Procumbens has also been tested, with the extract exhibiting antibacterial activity against gram-positive and gram-negative bacteria such as Bacillus cereus, Pseudomonas aeruginosa, Vibrio parahaemolyticus, and Salmonella typhi [5], [6]. The antifungal activity of G. Procumbens against fungi such as Candida albicans and Aspergillus niger was also observed. The findings of these studies have provided supporting evidence that substantiate the traditional use of G. Procumbens in the treatment of infections by pathogens such as the herpes simplex virus and malaria parasites [7], [8].
Anti-inflammatory action

In Thai traditional medicine, G. Procumbens is commonly used to treat inflammation [9]. It has been shown to prevent the increase in ear thickness of mice caused by croton oil-induced inflammation [10]. Additionally, topical application of ethanol extract on the wounds of animals that were tested showed significant dermal healing signs, less scar width, and a considerably faster healing rate when compared with the control group that had been treated with a saline solution [11]. Furthermore, the histological analysis has also revealed that there is a lesser amount of inflammatory cells during the formation of granulation tissue on the wound area and a higher amount of collagen with angiogenesis. Therefore, the anti-inflammatory and immunomodulatory action of G. Procumbens may be utilized for the treatment of inflammatory diseases. Since 2012, Gynura has been cultivated in Cyprus at the plantation of Via Vitae Estate Ltd., in the Limassol area. Water based extract from the plant demonstrated bactericide and fungicide action [12].

Application of ethanol and water-based extracts showed significant and fast recovery of gingivitis affected areas in dental practice, in post-surgery and post-traumatic ulcer treatments [13], and in gynaecological applications for the treatment of acute colpitis-vaginitis [14].

Materials and methods

The company Via Vitae Estate Ltd., Limassol, has produced the following products of Gynura Procumbens, which were used for this study:

Aquintsept, water based natural spray;
Epidan, skin calming oil;
Gynura tea in sachets.

Clinical cases

8 patients (5-12 years old) diagnosed with symptoms of sore throat and 5 adult patients with eczema were observed.

Aquintsept was used as a supporting agent together with antibiotics. The results after 2-3 days of application show that Aquintsept acts as an anti-inflammatory agent and has a softening effect on swallowing.

From this group of patients, 5 patients with pharyngitis, aged 8-11 years, already felt better by day 3. The redness of the throat and the dry cough had decreased.
Epidan was used for 5 adults (mothers) with eczema. Considerable moisturizing action on affected areas was observed, as well as relief from itching.

Brewed and cooled sachets of Gynura tea were used for one week for wiping the skin of 6 children aged between 8 months and 5 years old. Moisturizing, soothing and relief from itching was observed.

Conclusion

Products of Gynura Procumbens demonstrated obvious anti-inflammatory as well as hypoallergenic, soothing, calming and moisturizing properties, and being a natural and safe product, may have good potential in pediatric applications.

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References