

Short Commentary

## Commentary on Jia-Ying Yuan et al.: Research Progress on Icaria, a Traditional Chinese Medicine Extract, in the Treatment of Asthma

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I am delighted to have the opportunity to comment on the article, "Research progress on icaria, a traditional Chinese medicine extract, in the treatment of asthma" by Jia-Ying Yuan et al. Current asthma management guidelines recommend inhaled glucocorticoids as preferred therapy for control of mild persistent, moderate and severe asthma, according to the Global Initiative for Asthma (GINA) guidelines [1]. However, hormonal imbalance can lead to several health issues such as obesity, cardiovascular disease, autoimmune disease, breast cancer, and osteoporosis. It is an important research direction to find new, safe and effective drugs to replace hormones in the treatment of asthma. Traditional Chinese medicines and natural medicine are getting more attention, since Tu Youyou was awarded the 2015 Nobel Prize in physiology or medicine for the discovery of artemisinin used for malaria treatment. Epimedium for the treatment of asthma has been proposed in various traditional Chinese medicine prescriptions. Epimedium herb, commonly named as Yinyanghuo in Chinese, has its origins in the Berberidaceae family which include Epimedium koreanum Nakai, Epimedium brevicornum Maxim, Epimedium pubescens Maxim and Epimedium sagittatum. Icaria is a major bioactive component extracted from Epimedium brevicornum Maxim, which has various biological attributes such as anti-inflammatory and antioxidative activities, and immune regulation.

As we all know, the pathogenesis of asthma is complex. Airway inflammation and airway remodeling are the main characteristics of asthma. Through a large number of literature collection, the author found that icaria mainly treats asthma through the following

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mechanisms: One of the mechanisms that Icaria could inhibit airway inflammation by regulating the expression of eosinophils and basophils and the Hypothalamic-Pituitary-Adrenal Axis (HPAA), improving the imbalance of Th1/Th2 cell and Th17/Treg cells and inhibiting the expression of Prostaglandin D2 (PGD2) and Endoplasmic Reticulum (ER) stress. The other mechanism is that Icaria could inhibit airway remodeling by inhibiting extracellular matrix (ECM) deposition, airway epithelial cell-to-Mesenchymal Transition (EMT), airway smooth muscle (ASMC) proliferation and the proinflammatory effect of macrophages. There are many mechanisms of icaria in the treatment of asthma, but which mechanism is the most important is still worth further study.

Icaria has attracted extensive attention in clinical treatment because of its extensive role. In this article, the author proposes that icaria has been found in many articles to have a variety of functions and is widely used in the treatment of various diseases, including lung cancer, heart disease, osteoporosis, and rheumatism [2-5]. It also can be used for the treatment of rheumatism and amelioration of neurological deficits [6,7]. Whether icaria will become a panacea like aspirin, or will it be combined with other traditional Chinese medicine to have many therapeutic effects on other diseases, which is also worthy of in-depth exploration and research.

### References

1. Global Strategy for Asthma Management and Prevention (2019) Global Initiative for Asthma 2018 GINA Report. Global Strategy for Asthma Management and Prevention, USA.
2. Wu X, Kong W, Qi X, Wang S, Chen Y, et al. (2019) Icaria induces apoptosis of human lung adenocarcinoma cells by activating the mitochondrial apoptotic pathway. *Life Sci* 239: 116879.
3. Qi C, Shao Y, Liu X, Wang D, Li X (2019) The cardioprotective effects of icaria on the isoprenaline-induced takotsubo-like rat model: involvement of reactive oxygen species and the TLR4/NF-κB signaling pathway. *Int Immunopharmacol* 74: 105733.
4. Liu H, Li W, Luo B, Chen X, Wen W, et al. (2017) Icaria immobilized electrospinning poly(l-lactide) fibrous membranes via polydopamine adhesive coating with enhanced cytocompatibility and osteogenic activity. *Mater Sci Eng C Mater Biol Appl* 79: 399-409.
5. Ye Y, Jing X, Li N, Wu Y, Li B, et al. (2017) Icaria promotes proliferation and osteogenic differentiation of rat adipose-derived stem cells by activating the RhoA-TAZ signaling pathway. *Biomed. Pharmacother* 88: 384-394.
6. Peng T, Jiang Y, Farhan M, Lazarovici P, Chen L, et al. (2019) Anti-inflammatory Effects of Traditional Chinese Medicines on Preclinical in vivo Models of Brain Ischemia-Reperfusion-Injury: Prospects for Neuroprotective Drug Discovery and Therapy. *Front Pharmacol* 7: 10:204.
7. Lin HM, Lin LF, Sun MY, Liu J, Wu Q (2020) Topical Delivery of Four Neuroprotective Ingredients by Ethosome-Gel: Synergistic Combination for Treatment of Oxaliplatin-Induced Peripheral Neuropathy. *Int J Nanomedicine* 15: 3251-3266.



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