

## Adjunct therapy with Probiotics for Chronic Urticaria in children: Randomised placebo-controlled trial.

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**Background & Objectives:** Chronic urticaria is a common disorder of the skin, characterized by recurrent skin wheals and angioedema. Recent reports have shown that altered diversity and composition of the gut microbiota may lead to imbalances in immune regulation, a causal factor in the occurrence of chronic urticarial. **This study aimed to evaluate the efficacy of the combination probiotic formula in the adjuvant treatment of chronic urticaria in children.**

**Methods:** Prospective double blinded, randomized clinical trial based in 1 hospital in Henan, China, enrolled 206 patients diagnosed as Chronic Urticaria, 6 to 12 years of age in 1 year duration (2019). Chronic urticaria was diagnosed according to the criteria of the American Academy of Allergy, Asthma and Immunology. Exclusion criteria were treatment with antibiotics, systemic corticosteroids and other immunosuppressants during one month prior to recruitment, C1 esterase inhibitor deficiency, lymphocytopenia, thrombocytopenia and patients with severe liver, kidney, heart, metabolic diseases and autoimmune diseases.

The combination probiotic product named **Yimingjia** was used, a lyophilised mixture of six organisms (**Lactobacillus gasseri** LK001, 40%; **Lactobacillus salivarius** LK002, 20%; **Lactobacillus johnsonii** LK003, 15%; **Lactobacillus paracasei** LK004, 5%; **Lactobacillus reuteri** LK005, 5%; **Bifidobacterium animalis** LK011, 15%) at a concentration of  $5 \times 10^9$  CFU live total bacteria/g.

Patients were randomly assigned to the treatment (n = 104) or placebo group (n = 102). The children in each group were treated with desloratadine dry suspension (2.5mg), and those in the treatment group also received **Yimingjia**®. Clinical efficacy was evaluated at 1, 2 and 4 weeks.

# ACADEMIC P.E.A.R.L.S

Pediatric Evidence And Research Learning Snippet



## Adjunct therapy with Probiotics for Chronic Urticaria in Children Are Microbes Changing Future of Allergy?

### Results:

- Clinical symptom scores did not differ significantly at weeks 1 and 2 ( $p > 0.05$ ), but at 4 weeks, wheal size and attack frequency were significantly reduced in the treatment group ( $p = 0.049$  and  $0.03$ , respectively).
- The overall response rate (significant improvement + complete response) significantly differed between the treatment (80.8%) and placebo groups (62.5%) ( $\chi^2 = 4.20$ ,  $p = 0.04$ ).

**Conclusions:** Adjunct therapy with **Yimingjia**® was safe and effective at 4 weeks in the treatment of chronic urticaria in children.

**Key message:** Probiotics combination appears to be beneficial as adjunct therapy for children with chronic urticaria.

### EXPERT COMMENT

**“Probiotics combination accompanied with long acting anti-histamine medication for four weeks can reduce clinical symptom score, wheal size and attack frequency in school-age children as compared to those with medication alone in chronic urticaria.”**

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With warm regards,

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### Reference

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