Perinatal eczema risk reduction

In Western societies, the prevalence of allergy is rising and is expected to grow even further (see figure 1). The World Allergy Organisation (WAO) reported that nowadays allergy affects more than 20% of the populations of most developed countries.

The major allergic diseases eczema, asthma, hay fever and food allergy affect not only quality of life but also have an impact on the socioeconomic welfare of society. This requests a preventive strategy to overcome these effects. An important role for the increase of allergies over the past decades is, according to the hygiene hypothesis, a decreased exposure to microbes early in life. This hypothesis is based on the generally accepted fact that establishing a healthy intestinal microbiota early in life contributes to proper intestinal development and maturation of the immune system. This relatively low or inappropriate microbial exposure could be a problem for the child’s developing immune system and as such be responsible for the increasing prevalence of allergic diseases. Research has shown that the intestine of babies suffering from eczema shows a less diverse microbiota composition compared to the intestine of healthy babies.

A potential approach to influence the neonatal development of microbiota and immune system is early administration of specifically selected probiotic strains.

Ecologic® PANDA
Ecologic® PANDA is a multispecies probiotic specifically developed to prevent the development of eczema. Ecologic® PANDA has been developed and researched in close collaboration with the Wilhelmina Children’s Hospital of the University Medical Centre of Utrecht. The strains have been selected based on their capacity to modulate the intestinal microbiota in such a way that the immune system reacts to allergens with a relatively mild response (figure 2).
Clinical evidence

Ecologic® PANDA has been tested in a randomized double-blind placebo-controlled trial including 102 pregnant women who were at high risk of getting an allergic baby due to a positive family history. Subjects received either Ecologic® PANDA or a placebo which was administered prenatally (in the diet during pregnancy 6-8 weeks prior to delivery) and postnatally (during the first 12 months of life to the child). Results substantiated previous research outcomes by showing that babies which did not develop eczema had a higher microbial diversity (figure 3). Clinical results also showed a significant reduction of eczema after 3 months in the babies receiving Ecologic® PANDA, and a sustainment of this effect until two years after birth (figure 4). All phases of the research that led to this product have been published in a PhD thesis.

References

1  WAO White Book on Allergy, 2011
5  The EFSA Journal. 2007; 587:1-16.

Ecologic® PANDA publications

7 Niers L.E. et al. The effects of selected probiotic strains on the development of eczema (the PandA study). Allergy. 2009;64(9):1134-1138.

Application

Prevention of eczema development.

Product quality

Bacterial strains combined with a unique Winclow technique that ensures biological activity, gastro-intestinal survival and stability of the probiotic strains.

Ingredients

Mixture of bacterial strains (B. bifidum W23, B. lactis W52, Lc. lactis W58), with PROBIOACT Technology; protective and nutritional ingredients that improve the effectiveness of the product.

Colony forming units (CFU) 1 x 10^9 CFU/gram.

Dosage

3 grams a day.

Treatment period

Pregnant women: start 6-8 weeks before delivery. Newborn babies: first year.

Application form

Powder (delivered in bulk or sachets).

Stability

Stable at room temperature.

Marketing

Exclusively, on a co-branding basis. We are searching for partners with their own brand selling medical-endorsed.

Safety and Quality Profile

All probiotic strains in Ecologic® PANDA have the QPS (Qualified Presumption of Safety)-status. Winclow is a NSF International Certified GMP Facility for manufacturing dietary supplements. Winclow’s food safety management system is ISO 22000:2005 certified for the development and production of pre-and probiotics.

Figure 3: Ecologic® PANDA increased the diversity of the microbial community.

Figure 4: Ecologic® PANDA shows a significant reduction of eczema development.

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