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A preventive effect of *Pediococcus pentosaceus* 159 on atopic dermatitis induced by mite in BALB/c mice

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The oral intake of probiotics can provide beneficial effects to the host by modulating the immune response. Atopic dermatitis (AD) is common allergic and inflammatory skin disease caused by a combination of eczema, scratching, pruritus, and cutaneous sensitization with allergens. The author examined the effect of a *Pedioccoccus pentosaceus* 159 on AD prevention by using an existing AD model based on the repeated local exposure of house dust mite and 2,4-dinitochlorobenzene to the ears of BALB/c mice. The oral administration of *P. pentosaceus* 159 (10^8CFU/day) over eight-week period attenuated AD symptoms in term of ear thickness, histopathological analysis, the serum IgE levels. Histopathological results showed that infiltration levels of immune cells in the skin of AD-induced BALB/C mice were much improved by *P. pentosaceus* 159 oral administration. In addition to the secretion of IL-4 and IL-10 reduced by *P. pentosaceus* 159 oral administration in draining lymph node (superficial, axillary, bronchial lymph node) cells. Taken together, the results demonstrate that *P. pentosaceus* 159 inhibited the development of AD, suggesting that *P. pentosaceus* 159 may be effective in preventing allergic skin disorders.

Biography

So-Young Lee completed her PhD at the age of 29 years from Pukyong National University. Currently, she is working as senior researcher at Korea Food Research Institute, Republic of Korea. She has published more than 20 papers in reputed journals.

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