

〈一般論文〉

NC/Nga マウスを用いた動物モデルにおけるアスタキサンチンの 皮膚炎症軽減作用

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Ameliorating Effect of Astaxanthin on Dermatitis in an Animal Model Using NC/Nga Mice

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Abstract

Many lines of evidence have shown that a carotenoid, astaxanthin, has strong antioxidative activity and hence various physiological efficacies including those on inflammatory response and immune system. We therefore attempted in the present study to investigate the effect of astaxanthin on skin troubles using a mouse model of atopic dermatitis. To induce atopic dermatitis-like lesions, male NC/Nga mice (7 weeks old) were sensitized by intradermal injections (9 times every 3 days) of mite antigen into ear pinnae. One week after the first sensitization, mice were divided into two groups ($n=10$ /group) and were administered orally 25 mg/kg of astaxanthin or olive oil once a day for 28 days. Mouse ear swelling test was carried out every 7 days during the administration period. As a result, it was revealed that administration of astaxanthin suppressed the rise in scores of symptom and significantly suppressed ear swelling. From these results, it is likely that astaxanthin can ameliorate skin troubles such as atopic dermatitis.

Key words: astaxanthin, skin trouble, dermatitis.