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Probiotics and oxidant-antioxidant relationship

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Abstract

There is a balance between oxidants and antioxidants in the organism. Oxidative stress and tissue damage develop when total oxidant level exceeds total antioxidant capacity. The microbiota in the intestines is part of an extremely complex ecological system. These microorganisms interact not only with each other but also with their hosts in a symbiotic relationship. Autoimmune Dermatitis, Gastrointestinal System Pathologies , Endocrinological Pathologies , Cancer and recently various diseases including neuropathology, associated with dysbiosis. Oxidative stress is a critical event in the pathogenesis of many diseases, and oxidative stress increases in pathologies seen in dysbiosis. In the case of probiotics, oxidative stress and dysbiosis, it should be aimed to increase awareness of the use of concomitant and / or prophylactic in addition to specific treatment in the field of Veterinary Medicine. The academic studies on Probioclubs in Veterinary Medicine and Human Medicine have been compiled. Probiotics are known to have many beneficial health effects and consumption, shows that strain-specific probiotics may exhibit antioxidant activity and reduce the damage caused by oxidation. Metabolic antioxidant activity of LAB; it may be caused by the production of its own antioxidant enzymes (superoxide dismutase and catalase) and its antioxidant metabolites (folate and glutathione). Proper use of probiotics reduces oxidative stress in dysbiosis-causing diseases, increased oxidant levels in metabolic diseases such as obesity and diabetes but decreased with the use of probiotics, besides the local effects of probiotics in microbiota, symbiotic effects are thought to play a role in the systemic antioxidant-oxidant mechanism. Thus, it has been concluded that by increasing and investigating the use of probiotics in the field of veterinary medicine it will contribute to the positive results for the control of the factors affecting animal and human health.

Keywords: antioxidant, oxidant, probiotic

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