

Effects of Aronia Melanocarpa on the Process of Thymic Involution in Aging Rats

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Progressive thymic involution, a sign of aging leads to loss of immune function associated with T-cell immunity and increased susceptibility to infections, risk for development of autoimmune diseases and neoplasms in adults. It has been shown that the thymic tissue is a plastic tissue and the process of involution can be delayed and even therapeutically reversed. The use of antioxidants is one potential therapeutic approach for slowing aging of immunity. The purpose of this study is to determine the effect of Aronia melanocarpa juice either pure or enriched with 1% pectin on the thymus involution in aging rats. The results show differences in thymus weight index, weight and size between the groups of treated rats and normal controls. The thymus of treated animals along with the usual age-related changes shows increased cortical apoptosis similar to the extent seen in young controls and is suggested as an expression of remodeling or even rejuvenating.

Key words: Thymic involution, Antioxidants, Aronia melanocarpa.