Influence of polysaccharide fraction C isolated from *Caltha palustris* L. on T and B lymphocyte subsets in mice.

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Rok wydania

2012

Czasopismo

Central European Journal of Immunology

Numer woluminu

37

Strony

193-199

DOI

10.5114/ceji.2012.30792

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

Extracts from a diverse range of plants have been shown to possess immunomodulatory properties. Caltha palustris L. (Ranunculaceae) is a plant widely known and distributed in Europe, Asia and North America. The extracts from Caltha palustris have been used in traditional Canadian and Asian medicine to treat arthritis rheumatism, gonorrhea and a variety of skin diseases. The effects of polysaccharide fraction C from Caltha palustris L. extract (0.1, 1 and 10 mg/kg) on the total number of lymphocytes in the thymus, spleen and mesenteric lymph nodes and the percentage and the absolute number of T cells (CD4–CD8–, CD4+CD8+, CD4+, CD8+) in the thymus and T cells (CD3+, CD4+, CD8+) and B (CD19+) lymphocytes in the spleen and mesenteric lymph nodes in mice were studied. The investigated substance was administered intraperitoneally once or five times to mice. The measurements were determined twice: on days 1 and 3 after last administration of fraction C. It was found that five times administration of fraction C from Caltha palustris L. extract significantly increased the absolute count and the percentage of CD4+ thymic cells irrespective of the dose applied. Moreover, five exposures to fraction C (1 and 0.1 mg/kg) increased percentage of CD4+ splenocytes. Multiple administration of examined fraction C increased the B lymphocyte population (CD19+ cells) in spleen and mesenteric lymph nodes. The results of the study showed that fraction C from Caltha palustris extract is able to change the percentage and absolute number of T and B lymphocytes in lymphatic organs. The effect of the examined substance depends on the number of consecutive doses applied

Słowa kluczowe

polysaccharide, Caltha palustris L, extract, B and T lymphocyte subsets, mice