

Enhancement of humoral immunity by ayurvedic herbal preparations

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Immune system is impaired in conditions, such as, stresses, aging, diabetes, cancer, AIDS, etc. Immunostimulants play significant role to maintain or up-regulation of immunity to protect the body from infections and cancers in immune-compromised conditions. The interest in herbal medicines is growing because of its low toxicity, no side-effects, and diversifying sources of new therapeutic agents. This study aimed to evaluate the immunostimulating potential of 35 traditional ayurvedic preparations by measuring IgM productions and splenocytes proliferations *in vitro*. BALB/c mice splenocytes were treated with 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3, and 4% (v/v) of preparations, and cells were subcultured at 37 °C for 120 hours. IgM productions in cultured supernatants and proliferations of cells were determined by ELISA and MTT assays, respectively. Among 35 preparations investigated, 9 namely Saribadi, Anantamool Salsa, Mrittunjoy, Saribadyarista, Lauhasav, Kanakasav, Chandanasav, Prasarani Sandhan and Amrita at 0.25-2.0% significantly augmented IgM productions. These preparations also moderately stimulated the proliferations of cultured splenocytes. The activity of first 6 preparations was not retarded by the treatment of cells with polymixin B; whereas the last 3 preparations activity was drastically reduced. Thus, the IgM production ability of first 5 preparations was not due to the presence of bacterial endotoxin (LPS) rather due to the active substance(s) in its preparations. The ayurvedic preparations Saribadi, Anantamool Salsa, Mrittunjoy, Saribadyarista, Lauhasav and Kanakasav may be useful for strengthening immune responses in case of impaired immunity.

Biography

Md. Moklesur Rahman Sarker has completed his Ph.D. from the Faculty of Pharmaceutical Sciences, Okayama University, Japan. He has 13 years' academic and research career. Currently, he is an assistant Professor at the department of Pharmacy, Primeasia University, Bangladesh. Recently, he has awarded as visiting research fellow in the Faculty of Medicine, University of Malaya, Malaysia. He is former head, department of Pharmacy, Daffodil International University, Bangladesh. He has published more than 20 papers in reputed peer review journals. He is serving as an editorial board member and reviewer of several national and international journals.

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