

**Polysaccharide peptide (PSP) restores immunosuppression induced by cyclophosphamide in rats.**

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Polysaccharide peptide (PSP) is a protein-bound polysaccharide extracted from an edible mushroom, *Coriolus versicolor*. Effects of PSP (2g/kg/day) on cyclophosphamide (CPA, 40 mg/kg/2 days)-induced immunosuppression were investigated by determining lymphocyte proliferation, Natural killer (NK) cell formation, IgG and IL-2 concentration, WBC count and the weight of organs after rats were treated with or without CPA in the presence or absence of PSP. The results demonstrated that PSP possessed immunopotentiating effect, being effective in restoring CPA-induced immunosuppression such as depressed lymphocyte proliferation, Natural Killer cell function, production on white blood cell and the growth of spleen and thymus in rats as well as in increasing both IgG and IL-2 production on which CPA did not have significant effects under the conditions of our experiments. PSP can partly restore CPA-induced immunosuppression. Based on our findings and the data accumulated so far, it was suggested that PSP should be considered as an useful adjuvant especially combined with CPA or other chemotherapy in clinical treatment of cancer patients. The mechanism by which PSP restores the immunosuppression induced by CPA is unclear.