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Allergina inhibits the progression of graft rejection, hypersensitivity, and collagen-induced autoimmune arthritis

CW Lee, SB Han, PS Yoon, CM Jeong, ML Lee, KM Kim, YD Yoon, HC Kim, SK Park and HM Kim

Biopotency Evaluation Laboratory, Korea Research Institute of Bioscience Biotechnology (KRIBB)

The herbal combination allergina has been used for the treatment of inflammatory diseases in South Korea. In this study, we investigated the immunosuppressive activities of allergina in more detail. Acute graft-versus-host disease (GVHD) is a major cause of morbidity and mortality in patients undergoing allogeneic bone marrow transplantation. Administration of allergina into Balb/c mice given total body irradiation followed by transplantation of bone marrow and spleen cells from C57BL/6 mice markedly reduced the mortality. In addition to systemic GVHD, allergina also showed therapeutic activity in local GVHD, in which allergina reduced lymph node weight of B6C3F1 mice transplanted of spleen cells from C3H mice. This herbal medicine also inhibited delayed-type hypersensitivity in which mice were intradermally injected with sheep red blood cells into the left footpad and were given allergina orally, suggesting that allergina inhibited cell-mediated immunity. Allergina also inhibited collageninduced arthritis in DBA/1 mice, which were immunized with type II collagen, complete freund adjuvant, and LPS. These results suggested that allergina could be a potent therapeutic agent for the treatment of immune-related diseases such as graft rejection, hypersensitivity, and autoimmune arthritis.

Keyword: Allergina; transplantation; Graft reaction; Hypersensitivity; Arthritis