

Medicinal Plants as Immunosuppressive Agents in Traditional Iranian Medicine

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ABSTRACT

Immunomodulation using medicinal plants provides an alternative to conventional chemotherapy for several diseases, especially when suppression of inflammation is desired. The "Canon of Medicine", the epochal work of Avicenna, the great Persian scientist of the middle ages, provides comprehensive information about medicinal plants which used to cure inflammatory illnesses in traditional Iranian medicine. Taking into consideration that the mechanisms of damage in these illnesses are mediated by immune responses, it is reasonable to assume that the plants used for such diseases may suppress the immune responses and the resultant inflammation. In Iran, because of great diversity of climate and geographical conditions, numerous varieties of plants grow and at least 1000 species are recorded as medicinal plants. Many of these plants such as *Punica granatum*, *Glycyrrhiza glabra*, *Foeniculum vulgare* and *Polygonum species* prescribed by ancient Iranian physicians have been shown to possess anti-inflammatory and immunomodulatory effects. In recent literature, different species of native medicinal plants such as *Stachys obtusirena*, *Salvia mirzayanii*, *Echium amoenum*, *Dracocephalum kotschyi* and *Linum persicum* have been shown to have appreciable anti-inflammatory and immunomodulatory effects including inhibitory effects on lymphocyte activation, suppression of cellular and humoral immunity and induction of apoptosis. This review focuses on plants that are used in Iranian traditional medicine and have been reported to act as immunoinhibitory agents.

Keywords: Immunomodulation, Iran, Traditional Medicine

INTRODUCTION

In recent years, the use of medicinal plants as an alternative to conventional medicine for treatment of various diseases has increased. This is mainly due to their safety and lower side effects, and in some cases, their more effectiveness. A number of medicinal plants have shown inhibitory potentials in immune responses and some of them have been used traditionally to treat inflammatory diseases. This review describes plants that have immunosuppressive effects and are used in Iranian traditional medicine.

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