

## From Ghennab to Cannabis: Hopes to Find a Cure for Multiple Sclerosis are Flourishing

A. Ghannadi <sup>PhD</sup>, M. Sadeghi <sup>PharmD</sup>

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### Abstract:

Multiple sclerosis (MS) is an inflammatory, autoimmune, demyelinating disease of the central nervous system. It generally strikes at the early adult years and is the most common cause of neurologic disability in young adults. The disease usually influences quality of life to a marked degree. Currently approved drug therapies for MS have different adverse effects and immunosuppressants and interferon  $\beta$  are still mainstays of the conventional management. The drawbacks of the current drug therapies for MS urge researchers to develop more effective drugs with fewer adverse effects.

Indian hemp, *Cannabis sativa* L. is an indigenous herb to Asia, with a long history of use in different diseases. The plant was historically known as Ghennab in Iran and has been used in Iranian traditional medicine. Some Iranian physicians have described the botanical properties and its therapeutic effects in their books. As a conventional use, at present some MS patients take Cannabis to remove the spasticity and pain associated with this condition. Moreover, Cannabis has recently received much attention because of detection of an endogenous cannabinoid system in some parts of the human brain and the immune system, represented by two cannabinoid receptors CB1 and CB2. Clinical studies suggest that activation of these receptors can relieve the clinical signs of MS; particularly neuropathic pain and spasticity. Also, it is suggested that this can decrease inflammation and possibly slow down progression of the disease. The current study briefly introduces the plant and reviews the history of Cannabis and new pharmacological evidence that support the use of the plant in MS disease.

**Keywords:** Multiple sclerosis; Ghennab; Cannabis, Iranian traditional medicine.

**Corresponding Author:** M. Sadeghi

**Email:** m\_sadeghi@pharm.mui.ac.ir

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