**Effective herbal medicine (*Artemisia.vulgaris*) in the treatment of**

**Leukemia disease**

Farzaneh Ohadi 1

1. -Master of Cell and Molecular Biology, Department of Food and Drug, Isfahan University of Medical Sciences, Isfahan, Iran

[f.ohadi@yahoo.com](mailto:f.ohadi@yahoo.com)

**‌ Statement of Problem:** Leukemia is a group of blood cancers that usually begin in the bone marrow and result in high numbers of abnormal blood cells. The cause of leukemia is unknown, but some factors put people at higher risk. Treatment methods include radiation therapy, chemotherapy treatment, immunotherapy, stem cell therapy, etc. In the studies have been done on several extracts of different plants, it was found that the aerial parts of *Artemisia.vulgaris* have been able to suppress the growth of leukemia cells.

**Research Purpose**: The purpose of this study is to review the studies conducted on the effective herbal medicine (*Artemisia.vulgaris*) in the treatment of leukemia.

**Research Method:** The review method is to search in Pubmed and Google Scholar

**Results and Conclusion:** the aerial parts of *Artemisia.vulgaris* are being used as an anthelminthic, an antiseptic, an antispasmodic, and a tonic for vital organs and for disorders including hepatitis. They are able to suppress the growth of leukemia cells. Screening shows that 1, 8 Cineol (Eucalyptol) extracted from *A.vulgarisis* kills leukemia cells in vitro. In the other study the results demonstrated that the essential oil-induced apoptosis in HL-60 leukemic cell line was mediated by caspase-dependent pathways, involving caspase-3, -9, and -8, which were initiated by Bcl-2/ Bax /Bid-dependent. The results recommended that *A.vulgaris* might be a promising source of new anticancer agents.

**Keywords:** Herbal medicines, Leukemia, HL-60, *Artemisia.vulgaris*