



## Evaluation of *Pistacia vera L.* efficacy (Syrian traditional medicine) as adjuvant treatment for Cutaneous Leishmaniasis

Chadi Khatib

Damascus University, Syria

### Abstract

Our search has mainly focused on the use of the traditional dermal cream that consists of an extract of pistachio fruit peels and its tree gum as adjuvant treatment of Cutaneous Leishmaniasis. *Pistacia vera L.* is a plant of Syrian origin, and the oldest tree of this plant exists in Al-Qalamoun area in Rural Damascus in Syria. As the peels of *Pistacia vera L.* fruits and the gum of its tree are rich with the phenolic substances. Cutaneous Leishmaniasis is seen in more than 80 countries all over the world and the Mediterranean region is considered one of the most affected areas with this epidemic, knowing that Aleppo is historically considered the home for this disease and that's why, this disease is called "Aleppo Boil", the spread of this epidemic has markedly increased in the world. There is no vaccine for Leishmaniasis and the available chemical treatment, that includes several ant parasites such as the Pentium-equivalent antimony derivatives including antimoniate meglumene and sodium stibogluconate has several limitations including among others, its variable efficacy depending on the type of parasite and the potential resistance for it, its high toxicity for the liver and heart, the long treatment duration and its high cost. Due to the above-mentioned facts, the drugs co-treatments (chemical-chemical) is getting more consideration. Besides, the natural products have recently become an unlimited source for developing anti Leishmania drugs given that they provide better level of efficacy and safety along with lower levels of toxicity in addition to their lower cost. We have assessed the efficacy of the ethanolic extracts of *Pistacia vera* as anti-Leishmaniasis in both in vitro and clinical study through topical administration.

The in-vitro tests were conducted using the ethanolic extracts of *Pistacia vera* tree's gum and the *L.tropica* parasites viability. The results showed a good biological effect when treating the parasites with gradually increased concentrations of the ethanolic extracts during the 48 hours of incubation. The double- blinded clinical study was conducted on 102 patients at the Leishmania center in Aleppo. The clinical results and observations showed that the local complementary treatment with the extracts of both the skin peels of *Pistacia vera L.* fruits and the gum of *Pistacia vera L.* tree could support the chemical treatment with antimoniate meglumene (administered through local injection) in treating the Cutaneous Leishmaniasis. The above mentioned support is manifested with reducing the injured area and its hardness in addition to reducing the edema and the redness. Besides, the above mentioned extracts could significantly support the treatment of the secondary infection and its associated ulcer.

### Biography

He is the Chairman of the Scientific Organization: The Syrian Herbs & Alternative Medicine & Nutrition Association (S.H.A.M.N.A). He is an inventor with 11 inventions in phytotherapy field such as (Herbal Antidote for Chelating Heavy Metals, Slimming Herbal Mixture, Organic Herbal Bread for Diet System..) in Syrian WIPO Branch. He has established an own company for Herbal and Pharmaceutical Industries (Green Pharma Co.). He was Awarded certificate of reviewing from ELSEVIER & Journal of Applied Research on Medicinal & Aromatic Plants, Feb, 2021. He was awarded Gold, Silver and Bronze medals in various International festival of innovations.