

Effect of *Pistacia atlantica* on cancer treatment: A review of traditional manuscripts and recent publications

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Abstract

Background and Purpose: Cancer is one of the leading causes of mortality worldwide. In recent years, the rate of cancer has been dramatically rising. Side effects and, in some cases, inefficiencies in common treatments have led to extensive research about new drugs, especially those with plant origin. The study of traditional medical knowledge can lead to the selection of effective plants for cancer treatment. *Pistacia atlantica* is one of the herbs that had been considered by the ancient scientists for different diseases including cancer. This plant has been mentioned in traditional manuscripts with Arabic words like "Botm", "Elk-ol-Botm", and "Habat-ol-Khazra".

Methods and Materials: In this study, the main traditional manuscripts were searched with *Pistacia atlantica* related keywords in addition to different words that refer to malignancy like "Saratan", "Khanazir", "Saqhirus" and "Jozam". Moreover, scientific databases such as Iran medex, Cochrane, PubMed, SID, Medline, Scopus, and Google Scholar were searched using keywords such as: *Pistacia atlantica*, Saqez, and Bane.

Results: Based on the results of this study, several anticancer formulations containing the resin of *Pistacia atlantica* was found in traditional medicine manuscripts. In recent studies, various parts of the plant have been shown to be effective in controlling and inhibiting the proliferation of different types of cancer cells.

Conclusion: So far, various compounds have been identified in *Pistacia atlantica*, such as phenolic compounds which have antioxidant effects and induce apoptosis in cancer cells. Regarding many indications available in traditional and modern medicine about the anticancer effects of this plant, it can be concluded that *Pistacia atlantica* has a high potential for further investigations, especially in the form of clinical studies, in order to obtain new anti-cancer drugs.

Keywords: *Pistacia atlantica*, Traditional Medicine, Elk-ol-Botm, Cancer.

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