**Gum tragacanth of *Astragalus*: a natural substance with potential medicinal properties**

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**Statement of Problem:**

Gum tragacanth extracted from *Astragalus* spp. has a long history of use in traditional medicine. It has been used to treat a variety of conditions, including coughs, sore throats, diarrhea, and even snake bites. Its therapeutic properties are thought to be due to its ability to form a protective coating on the mucous membranes, which can help to soothe inflammation and irritation. One of the most well-known uses of gum tragacanth in traditional medicine is to treat respiratory conditions such as coughs and bronchitis. It is believed to soothe inflammation in the respiratory tract and reduce coughing. Additionally, gum tragacanth is sometimes used to treat sore throats and other throat irritations. Gum tragacanth has also been used as a natural remedy for diarrhea. Its ability to form a protective layer on the intestinal lining can help to soothe inflammation and reduce the frequency of bowel movements. However, it's important to note that more research is needed to fully understand its effectiveness for this purpose. Preliminary research has suggested that gum tragacanth may have potential as an anti-inflammatory and anti-cancer agent. Nevertheless, further studies are necessary to confirm these findings and determine the appropriate dosage and safety profile.

**Research Purpose:**

The aim of the overview summary, which is to identify and list the *Astragalus* species that produce gum tragacanth in Iran while highlighting their medicinal properties in traditional and modern medicine.

**Research Method:**

To identify the *Astragalus* species that produce gum tragacanth in Iran and their medicinal properties, we conducted a literature search using scientific papers, books, and local knowledge. The sources we consulted allowed us to compile a list of the most well-known producers of gum tragacanth in Iran.

**Results and Conclusion:**

*Astragalus* L. (Fabaceae) is the world's largest genus of flowering plants, comprising approximately 3000 species. With over 800 species, Iran is one of the most important centers of diversity for this genus, especially in high-elevation areas with harsh climates. hese species exhibit thorny or herbaceous characteristics, and more than 550 of them are endemic to Iran. The genus is mainly distributed in the Iranian-Turanian region, including the Zagros, Alborz, and Azerbaijan mountains, as well as scattered elevations throughout central Iran. Some thorny *Astragalus* taxa produce gum tragacanth, which is known as white and yellow gum tragacanth and is popular in Iran and among consumers. In particular, the *Platonychium*, *Rhacophorus* and *Brachycalyx* sections includes several well-known gum tragacanth-producing species. While gum tragacanth has a long history of use in traditional medicine, there is still much to be explored in terms of its potential medicinal and therapeutic properties. Research into the properties of this natural gum has shown promise in areas such as wound healing, anti-inflammatory effects, and as a prebiotic for gut health. Additionally, gum tragacanth has been found to have potential applications in the food and pharmaceutical industries, such as in the formulation of drug delivery systems and as a stabilizing agent in food products. With continued research, the full extent of the benefits of gum tragacanth may be further uncovered, offering potential opportunities for its use in various fields.

**Keywords:** *Astragalus*, Fabaceae, gum tragacanth, Iran, traditional medicine.