

## Medicinal substances for inflammations and swellings in Persian Medicine

Abdollah Dadazadeh<sup>a</sup>\*, Diba Raeisi<sup>b</sup>, Zahra Tavangar<sup>b</sup>

<sup>a</sup>Medicinal Plants Group, Biotechnology Department, Technical and Vocational Training Organization, Tabriz, Iran

<sup>b</sup>Medicinal Plants Group, Hamdel Educational Institute, Tabriz, Iran

## **Abstract:**

**Background and Purpose**: A wide range of various diseases including auto-immune and autoinflammatory illnesses are associated with inflammatory processes. Most metabolic, cardiovascular, neurological, and gastrointestinal disorders, as well as osteoarthritis, rheumatoid arthritis, rheumatism, gout and various cancers have an inflammatory nature. Use corticosteroid anti-inflammatory drugs is accompanied by extensive serious side effects. This research was performed considering that swellings mentioned in Persian Medicine (PM) sources are very similar to inflammation in classical medicine in terms of clinical symptoms, and that natural anti-inflammatory drugs usually have less side effects compared with synthetic drugs.

Materials and Methods: This research is a review study of valuable PM sources including Al-Qanun fi al-Tibb, Al-Mansouri fi al-Tibb, Makhzan al-Adwiya, Makhazin al-Ta'līm, Tazkirat al-Ilaj, Tuhfat ul-Momineen. Medicinal substances recommended for inflammations and swellings were identified and categorized. For more accuracy, scientific names of these medicinal substances were matched with contemporary botanical references. To confirm the pharmacological activities of these drugs, valuable electronic sources such as PubMed, Science Direct, and Scopus were queried.

**Results:** This research yielded 150 medicinal substances that were categorized by their effects on inflammations and swellings. The anti-inflammatory mechanisms of these substances are similar to non-steroidal anti-inflammatory drugs (usually prostaglandin inhibition), anti-inflammatory pathways of glucocorticoids, or combinational anti-inflammatory effects mechanism due to production of secondary metabolites.

**Conclusion:** Some of the medicinal substances found in this study have specific effects on a disease, while others ameliorate inflammations and swellings via systemic effects. Contemporary research (in vitro and in vivo) confirm the anti-inflammatory effects of some of these drugs, but more studies are needed to prepare these substances as acceptable drug forms.

**Keywords:** Persian Medicine, Medicinal Plants, Prostaglandin, Interleukin

Corresponding Author: dr.dadazadeh@eatvto.ir