

## عنوان مقاله:

Anti-inflammatory, anti-oxidant, and immunomodulatory activities of the genus *Ferula* and their constituents: A review

## محل انتشار:

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## خلاصه مقاله:

**Objective(s):** *Ferula* is a genus of the family Apiaceae and it includes around ۱۷۰ species of flowering plants mostly native to the Mediterranean region and eastern to central Asia. In Iran, *Ferula* spp. are widely used in cuisine and traditional medicine. This review discusses the anti-inflammatory, anti-oxidant, and immunomodulatory activities of different species of *Ferula*. **Materials and Methods:** To prepare the present review, Scopus, Google Scholar, PubMed, and Web of Science scientific databases were searched to retrieve relevant articles published from ۱۹۸۵ until December ۲۰۲۰. **Results:** Based on our literature review, *Ferula* plants and their derivatives decrease the levels of inflammatory mediators and exert anti-apoptotic effects. Under oxidative stress conditions, these plants and their constituents were shown to decrease oxidative markers such as malondialdehyde, reactive oxygen species, and nitric oxide but increase superoxide dismutase, glutathione peroxidase, catalase activity, and glutathione level. *Ferula* plants and their constituents also showed immunomodulatory effects by affecting various cytokines. Besides, *in vivo* and *in vitro* studies showed hypotensive, neuroprotective, memory-enhancing, anti-oxidant, hepatoprotective, antimicrobial, anticarcinogenic, anticytotoxic, antiobesity, and anthelmintic effects for various species of *Ferula* and their constituents. These plants also showed a healing effect on gynecological issues such as miscarriage, unusual pain, difficult menstruation, and leukorrhea. All these beneficial effects could have resulted from the anti-inflammatory, anti-oxidant, and immunomodulatory effects of these plants and their constituents. **Conclusion:** Based on the available literature, members of the genus *Ferula* can be regarded as potential therapeutics against inflammatory conditions, oxidative stress, and immune dysregulation.

## کلمات کلیدی:

Anti-inflammatory, Anti-oxidant, Coumarins, *Ferula*, Immunomodulatory

## لینک ثابت مقاله در پایگاه سیویلیکا:

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