



Portulaca Oleracea Phytochemistry and Pharmacological Considerations

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Abstract

Purslane (*Portulaca oleracea*), is edible both fresh and prepared. It also has therapeutic properties being mentioned, of Dioscorides in the list of herbs, used by, in the past, under the name of lax. This plant contains the following classes of substances alkaloids, fatty acids, polysaccharides, flavonoids, terpenoids, sterols, proteins vitamins and minerals. *P. oleracea* has a diverse palette of pharmacological properties such as anticancer anti diabetic, anti-inflammatory, antimicrobial, antioxidant, antiulcerogenic and neuroprotective activities.

Keywords: *Portulaca oleracea*; chemical composition; pharmacological properties

Introduction

P. oleracea tastes slightly sour, because it contains an important amount of vitamin C, a gelatinous juice, which is recognized as a medicine, recommended for the liver. It has a lot of medicinal benefits not yet explored. His scientific name is *P. oleracea* and from it we also have flower varieties, the flower of stone, popularly called, which is one of the same botanical class, called *Portulaca Grandiflora*. We could say that these flowers of stone can be used in food, being of the same family, have the same chemical composition. It is a genuine, natural food, a plant that does not require chemical treatments or fertilizers and which can be successfully cultivated in ecological system. It develops in spontaneous flora. We meet it especially in cultures. In some places it is considered as weed but cherished and recognized in countries like the United States, even in the top European countries, France, Germany, Greece, Cyprus. It is known almost as a food plant, used as a salad in other culinary products. *P. oleracea* (greasy grass) is used both as a food and as a medicine for some diseases [1].

Chemical Composition and Food Considerations

Researchers have found that the leaves of *P. oleracea*, which can be eaten as cooked vegetables, contain more Omega-3 fatty acids (a valuable health asset, especially for the liver, recommended for various affections even for treating infections) than any other edible plant, making them suitable for improvement the functioning of the brain and the cardiovascular system. It was also discovered that *P. oleracea* contains from 10 to 20 times more of the cancer-inhibiting antioxidant, melatonin, than any other fruit or vegetable tested. its leaves contain up to 300 mg of vitamin C, vitamins of group B, E, PP, carotene, most of the minerals necessary for the optimal functioning of the body: iron, magnesium, phosphorus, calcium, potassium, selenium, manganese, high content of Omega 3 and fatty acids [2]. It contains vegetable proteins just like beans or peas, carbohydrates, fatty acids, glycosides, starch and cellulose. From a chemical point of view, it contains the compounds: cyclo (Phe-Ile), cycle (Tyr-Ala), adenine, friedelin and isoselachoceric acid, alkaloid, (10E, 12E)-9-ureidooctadeca-10, 12-dienoic acid, named oleraurea and 10 known compounds, p-hydroxybenzaldehyde, p-hydroxybenzoic acid, p-hydroxyacetophenone, benzamide, (E)-p-coumaramide, (E)-ferulamamide, soyalkaloid A, β -carboline-3-carboxylic acid, 2, 3, 4, 9-tetrahydro-1H-pyrido [3, 4-b] indole-3-carboxylic acid, and (1S, 3S)-1-methyl-1, 2, 3, 4-tetrahydro- β -carboline-3-carboxylic acid, (3S)-5-hydroxy-3-(2-hydroxybenzyl)-7-methoxychroman-4-one, oleracone C, 5-hydroxy-3-(2-hydroxybenzyl)-7-methoxy-4H-chromen-4-one, oleracone D, and 1-(2-hydroxy-4,6-dimethoxyphenyl)-3-(2-hydroxyphenyl)propan-1-one, oleracone E, together with one new natural product, 5,7-dimethoxy-4-O-2'-cycloflavan, (2S)-5,2'-dihydroxy-7-methoxyflavanone and 2',4'-dihydroxy-4,6'-dimethoxychalcone, etc [3].

Pharmacological Use

Treatments with leaves, stems and flowers, is used in the following diseases: acute and chronic

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renal disorders associated with edema, renal lithiasis, atherosclerosis, liver disorders, diabetes; ulcerative colitis, blood vomiting, eye disorders, muscle spasms, dandruff, etc. [4]. *Treatments with Seeds* is used in the following diseases: bubbles, restless sleep, epidemic encephalitis, liver and cholecystitis, joint pain, syphilis arthritis, psoriasis, lichen versicolor and hepato-protective effects [5]. *Treatments with juice*: the juice is squeezed out of the plant, less roots, well washed and shaken by water. It is used in internal and external treatments. It is usually prescribed to drink freshly squeezed or frozen juice in ice cube molds, one tablespoon, 3-4 times a day before eating. It is an excellent adjuvant that combines with allopathic medication in cases of nephritis, cystitis, pyelonephritis, haemoptysis, gonorrhea, tricomonic collapse, syphilitic joint damage, dysentery, intestinal worms. With portulac juice, the skin is tamped when it snakes insects or bites snakes. In popular therapies, juice is used to remove warts, for phlegm, furunculosis, and panarium [6].

Remarks

P. oleracea (weed miracle) presents nutritional and pharmacological value high and very low anticholinesterase activity. Although it seems to be a universal drug, yet it also has contraindications, so it is contraindicated for patients predisposed to diencephalic (hypothalamic) seizures and seizures. People with hypoglycaemia should know that the *P. oleracea* may in some cases stimulate insulin secretion. Concentrated grass meal may increase blood pressure due to stenosis (blood vessel narrowing), so people with hypertension and bradycardia should lower doses and consume less often after consultation with a specialist in the field. Certainly, you should, as the researchers, give them, more attention, because this information, not to remain, just a simple enumeration, or worse mere speculation.

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