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Mathew George
Department of Pharmacology, Pushpagiri College of Pharmacy, Thiruvalla, Kerala, India

Lincy Joseph
Department of Pharmaceutical Chemistry, Pushpagiri College of Pharmacy, Thiruvalla, Kerala, India

Jilu Saji
Department of Pharmacology, Pushpagiri College of Pharmacy, Thiruvalla, Kerala, India

Correspondence
Jilu Saji
Department of Pharmacology, Pushpagiri College of Pharmacy, Thiruvalla, Kerala, India

A review on screening of antidiabetic activity of *Passiflora ligularis*

Mathew George, Lincy Joseph and Jilu Saji

Abstract
Medicinal plants and their extracts containing phytoconstituents play a vital role within the medicine system to preserve our health. India being medico diverse country in which the traditional systems of Ayurveda, Homeopathy and Unani recognize by the importance for medicinal plant extract variable in origins. Out of 2000 medicinal plants, which are recognized and are used throughout the system, Passiflora sp is one of them, many species of Passiflora have been used in therapeutic practice, and are used in the treatment of diabetis, anxiety cough cancer. *Passiflora ligularis* is commonly known as the sweet granadilla.

Keywords: Passiflora, *P. ligularis*, Phytoconstituents

Introduction
P. ligularis is a member of Passifloraceae family. It is commonly known as passion fruit and as sweet granadilla. It is a perennial evergreen plant also used as ornamental plant, can grow in tropic, sub topical or Mediterranean climate.it likes climate from 15 to 18 ^{0}C and between 600 to 1000mm of annual rain. It lives in abundant attitudes ranging from 1700 to 2600 meters above sea level. They have abundant, simple leaves and greenish – white flowers. The fruit is orange to yellow coloured with small light markings. The fruit is between 5.1 and 7 cm in diameter. The outer shell is hard ad slippery, and has soft padding on the interior to protect the seeds. The seeds which are black and hard are surrounded by a gelatinous sphere of transparent pulp. The pulp is edible part of the fruit and has a soft sweet taste. It is very aromatic and contains vitamin A, C and K, phosphorous, iron and calcium. The main producers are Peru, Venezuela, Brazil and Keneya. The main importers are the United Sttes, Canada, Belgium, Switzerland, Spain. The best way to start growing *Passiflora ligularis* is by plant/ seed/ vegetative reproduction. And the best time to plant this lant is in sping/summer/.

Synonym
Passion fruit, Granadilla, Sweet granadilla

Scientific Classification

Kingdom	:	Plantae
Division	:	Magnoliophyta
Class	:	Magnoliopsida
Subclass	:	Rosidae
Order	:	Malpighiales

Family	:	Passifloraceae
Genus	:	*Passiflora* L
Species	:	*Passiflora ligularis*

Chemical Constituents

It contain 2.5% of flavanoids. The major flavanoids include chrysin, isochaftoside, orientin, homo orientin, swertisin

Alkaloids are another class represented in passion fruit. It include harmane, harmol, harmaline, harmalol

It also include organic acids include formic, butyric, makic oleic and palmetic acid

Esters like butyrate, ethyl caporate.

Sugars include fructose, glucose

Enzymes incude catalase and phenolase

Antidiabetic Activity Studies

The results obtained from the studies shows that oral administration of the aqueous extract of stem of P. ligularis reduces blood glucose, serum lipids which could be due to improvement in insulin secretion by recovery of pancreatic β cells. P. ligularis posseses antioxidental potential which may be used for therapeutic potential mainly in the prevention of oxidative damage that occurs during diabetis. Presence of alkaloids and flavanoids of P. ligularis has also been found to be beneficial in controlling diabetis and many other diseases as evident from the studies. Therefore, it is concluded that the aqueous extract of fruit of P. ligularis posseses a tidiabetic activity and it may proved to be effective for the management of diabetis.

Conclusion

The *Passiflora ligularis* was reported to have antidiabetic activity.

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