



Significance of Quinch (pear) *Sydonia Oblonga* [A review]

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Abstract

God has gifted us with unlimited wonders. One of which is plants and animals which increase the natural beauty with many blessings and make our life easier. Many amazing things which are present due to the blessing of Allah in this whole universe from those we take much more benefits according to our needs. One which gives us fruit, as well as shelter, oxygen and many more, is a tree known as pear (*pyrus communis*). Like other fruits pear also have a sweet and juicy taste flavour. It is soft in the centre and hard outside. Eat fresh from trees and also picked and when ripe enjoy the taste of this delicious fruit. Due to its delicious taste and texture, it is used for making jams, jellies, and juices and sometimes used in salads and baby foods. Pear also used as fermented juice which is known as perry. Pear can grow in temperate regions include China, Pakistan and native to central, eastern Europe and south-west Asia. Pears belong to family Rosaceae (rose) family. Pear is one of the oldest plant cultured by man. The trees can live for a long period. Pear contains many secondary compounds and phytochemicals which help to defend us from many diseases. Such secondary compounds are arbutin, quercetin, anthocyanin which help in many ways such as Arbutin helps in skin whitening and eating fresh pear daily prevent from uterine cancer especially in women disease. It is also used in cosmetics. Pear is also helpful in recovering of wound healing. Pear is also rich in dietary supplements it contains vitamins, minerals, lipids, fatty acid and Flavonoids. Pears contain calcium which helps to maintain calcium level in our body which prevent us from osteoporosis. Pear properties like asdiuretic, analgesic, antioxidant, anti-inflammatory, sedative, antibacterial, antidiabetic, hypoallergenic. Pearwood is used to make furniture, musical instruments, and wood carvings. Pears are often prescribed for weaning babies because they are low in acid and aren't too effective on a babies digestive system.

Keywords: Pear; *Pyrus communis*; Hypoallergenic; Phytochemicals; Anti-bacterial

Introductions

Nature has gifted us with many lovely living things to increase the beauty of nature such as high mountains, waterfalls, trees, flowers and many more. One which is most important is trees which provide us with oxygen and provide us with fruits. One of these trees is pear which has many nutritional benefits as well as many medicinal uses. Pear is a sweet fruit that contains a lot of calcium, vitamins and minerals. The pear comes from the tree *Pyrus communis*, also called the common pear tree. The tree is 10 to 20 meters (33 to 66 feet) high (Aziz, S., & Sharma, S. C. 2001). They live an average of 65 years. Kingdom of *pyrus communis* is plantae and belongs to rosaceae family. Peartree can easily grow in heavy soil. Pear (*Pyrus communis*) is one of the most important fruit trees in the world which origin is from Europe and North Africa. *Pyrus* is a Latin classic name for pear tree while *communis* is of the Latin meaning common current. Pears contain special phytonutrients including anti-inflammatory flavonoids, anticancer polyphenols and anti-ageing flavonoids (Pustak Mahal. Gupta, C., Pacheco, C., & Prakash, D 2018). pear is also helpful in diseases like a kidney stone, decreasing cholesterol level and even diabetes. Pear has many varieties which are spread all over the world due to its sweet taste and texture some of them are soft and some are stiff and different in shape and size. According to origin and cultivation pear classified into three categories which are European pear, Japanese pear and Chinese. Every part of the pear tree has its importance due to its multiple tasks such as many medicinal as well as nutritional values. (Dubos R. J. 1987). The bark of the pear helps reduce pain produced by blows, twists. Pear leaves also reduce the inflammations of the prostate. Pearwood is used to make furniture, musical instruments, and wood carvings. It is also used to make wooden kitchen utensils because it doesn't ever pass any colour or odour to the food.

Classification

Plant name = Quinch (pear)
Botanical name = *cydonia oblonga*
Species = 5500
Family = Rosacea
Genera = Venticinco
Kingdom = plantae
Genus = *cydonia*

History

Pear is one of the oldest and beloved prehistoric fruit. The Greek poet Homer described pears as a "gift of the gods. The pear comes from Eastern Europe and Western Asia. The pear was also grown by the Romans in ancient times. (Rutgers University Press. Bernhardt, P. 2008). The pear was come into the New World by Europeans as soon as the colonies were established. Early Spanish carried the fruit to Mexico and California. Pear is the fifth most commonly produced fruit in the world. Pears are a member of the Rosaceae (Rose) family. Greek people think that pear is originated from wild pears and believe that it is a gift of Allah. But Chinese believe were different they think that they are bad sign and separation of friends and lovers there are some beliefs of a philosopher. (Bernhardt P. 2008). Later on, the pear tree was cultivated and spread into different parts of the world. Such as it spread in America, French, Belgium, Japan and so on. Nowadays in all over the world, many pear trees are propagated for the production of different things.

Cultivation

According to researches, there are 3000 well-known species of pear in the world. Peartree can easily grow in the temperate region. For plantation of pear tree, deep soil is suitable for its proper growth. (Rutgers University Press. Strand, L. L.1999) For normal propagation of pear, it can be done by grafting into another plant by choosing a good and fast ripening pear so that it can easily grow in that plant and bear fruit. Pears which are famous and liked by the majority of people are European pear and nashi pear among 3000 species three species cover a vast area and many people prefer them for eating and for other purposes these are main species of others. Pear needs 2to4 years to bear fruit on it and ripe in 3to4 months this is the ripening and producing a cycle of pear. Pear flowers bloom in spring and bear fruits in summer. (National Research Council US. Advisory Committee on Technology Innovation 1980).

Phytonutrients

Pear contains many phytonutrients and phytochemicals. Phytonutrients play an important role in life. It has some adverse effect on health. (Botelho G. Canas, S. & Lameiras J. 2017). Such as anti-oxidants, preventing cells, proteins and DNA from damage. Many bio-active phytonutrients are found and known and yet some are unknown. The most known phytonutrient is a polyphenol is anthocyanidins, flavan-3-ols, flavanones, flavones and flavonols. Pear is the best source of phenolic acids, chlorogenic acid, arbutin, ferulic and citric acid. Chlorogenic acid gives support for lipid metabolism. Citric acid helps in iron absorption which is a useful element for the body. Ferulic acid helps in anti-inflammatory, anti-diabetic, and anti-ageing, neuroprotective. Arbutin found in the leaf of pear which helps in alcohol metabolism and also as an anti-oxidant.(Li, X., Zhang, J. Y. Gao, W. Y. Wang, Y., Wang, H. Y., Cao, J. G., & Huang, L. Q. 2012). The triterpenoids are also present in stem and bark. Phloridzin is present in the root bark.

Nutritional Value Of Pear

Pears contain special phytonutrients, including anti-inflammatory flavonoids; anticancer polyphenols and anti-ageing flavonoids. Pears are also a good source of vitamins, carbohydrate, water, minerals and many more which are essential for us. Pear contains fructose which is helpful in case of diarrhoea in especially in children. (Bakhru, H. K.1995). It also contains vitamin c which is essential for skin whitening. Pear is a good source of dietary fibre and also essential element calcium which is helpful for maintains the bone strong and prevents from osteoporosis. Pear also helps us from heart attacks and obesity. Eating a lot of pears is beneficial for improving digestion and can fight constipation. Pear is helpful in detoxifications and clearing access to fluid or heat. (Tessmer, K. A. 2015).

Medicinal Uses Of Pear

Pear has a lot of medicinal uses due to its natural composition. Pear contains secondary components which are essential for our body. Such uses are as under.

Weight lose

Pear contains low calories but a lot of fibres and less amount of sodium due to which prevent from obesity. Pear contains pectin which is easily bound with fatty acid so that helps in weight loss. (Stauffer, C. E. (1993)

Cholesterol Lowering

Pear contains such specific fibre which helps lower cholesterol level such compound is pectin. (Roberfroid, M.1993).

Provides Antioxidants

Pear is rich in vitamin c, polyphenols; flavonoids present in the skin so don't peel the skin. Due to peeling of pear may waste of lipids and healthy fatty acid which can prevent us from many diseases. Quercetin and copper which prevent from damaging of cells. (Boone, L.2013).

Antimicrobial activity

Pear can fight against bacterial infections due to the presence of arbutin which built strong immunity. Leaves of pear contain hydroquinone which is also helpful to defend against antibacterial diseases and boost up biochemical reactions. (Gabriel, J. 2013).

Support heart health

Greater intake of fruits and vegetables helps in lowering of blood pressure which normalize the heart pluses which prevent from heart attack risks due to the presence of ursolic acid. Thus, consumption of pear daily is helpful in danger of cancer, especially in menopausal women.

Help fight against diabetes

The fruit contains a lot of fibre which help in maintain the blood glucose level in the body. This fruit contains fructose which has a low level of sugar which is good for a diabetic patient. (Asif, M. 2011).

Source of skin whitening

Taking fresh pear and by drinking of fresh juice may help in skin whitening because it contains a secondary compound arbutin. Pear fruit also prevents melanin formation. (CHAUHAN, R., Ruby, K., & DWIVEDI, J. 2013).

Helps in wound healing

Pear is rich in secondary compounds such as tannins, vitamins, and an antioxidant which helps in recovering wounds by making collagens. Arbutin is also helpful to recover wounds quickly. (Letchamo, W. Ozturk, M. Altay, V. Musayev, M.Mamedov, N. A., & Hakeem, K. R.2018)

Support bone health

Pear fruit contains a lot of calcium which helps make the bone strong and prevent from osteoporosis. (Balch, P. A. 2006).

Improve digestion and can fight constipation

Pectin is naturally diuretic which helps in improving digestion. Drinking juice of pear help against constipation by producing the faeces soft and easily eliminated through the intestine. It also helps in balance ph level (Balch, P. A. 2003).

Anti-inflammatory

Pears help in treating inflammation of colon, gallbladder, and arthritis. Secondary compounds help in lowering of inflammation.

Macular Degeneration

Eating three or more pear daily helps in lowers the risk of macular degeneration, which causes vision loss in elderly people. (Young, R. W.1987).

Traditional Value of Pear

Pear is a god gifted fruit which has a lot of traditional values and uses as energy drinks. It is used for the treatment of many dangerous diseases such as heart attack, kidney stone, constipation, obesity, diarrhoea, diabetes. (Ley, B. M. 2002). Eating of fresh pear fruit and juice during pregnancy is fruitful for mother and for the baby which prevent from many defects. Pear fruit is also preferred for weaning babies. Pear fruit is good for the diabetic patient due to low level of sugar and a high amount of pectin. Pear is used as a natural remedy against nausea in Greece. Pear helps the patient of obesity to lose weight. This fruit also helps to remain ph in the body. (Balch, P. A. 2006). It is a diuretic fruit and low content of sodium among these it contains vitamin B complex which contains folic acid. Pear is good for cardiovascular diseases by lowering blood pressure. The tree bark is also used to treat twists, blows, sprains. Pear juice is also useful in summers by giving freshness to minds and also for the throat in hot days. The flowers of pear are used as a folk medicine as its compounds used as an analgesic and spasmolytic drug. (Foster, S., & Hobbs, C. 2002).

Interesting Facts about Pear

Pear fruit is also used for making wine and the beverage obtained from the fermentation of pear is called perry. it is obtained by complete and partial fermentation of juice or mixture of pear (Booth, D. (1834)). Perry is an alcoholic beverage. High tannin-containing compounds are useful for perry. Pear is also used for making furniture's, musical instruments and also in wood carving. The wood is also in the kitchen for making utensils because it never let any smell during eating and never caught colour easily. Architect's rulers are also made from pear wood because it doesn't warp. Pear is also used as dyes. Pear is also used in sweet dishes for decoration. (Eiseman, L., & Hickey, R.1998).

Cosmetic Use of Pear

Skin whitening

Pear has such type of nutrients which are helpful for skin. It is added to facial scrub and face wash for skin freshness and moisturizes the skin for a long time. Daily consumption of pear also acts as a natural scrub. By using these scrubs the skin is free from wrinkles and become fresh because it contains vitamins and minerals which are also helpful in treating acne, pimples and other skin infections. (Day, D. J. & Forsyth, S.2005).

Pear for hair

Taking fresh pears may help in making hair strong and shine. Pear hair packs are also available by using their hair to become healthy, strong, long and beautiful. (Sachs, M. 2002). Due to these packs hairs are free from dryness and hair become stylish. By making scrub of fresh pear and apply to hairs make hairs shiny and smooth.

Conclusion

Nature has gifted us with many plants and animals which make our life easier and wonderful. One of these gifts is pear fruit. Pears are an excellent source of dietary fibre and a good source of vitamins, lipids, minerals, fatty acid, potassium and calcium. Pear is a sweet fruit with a juicy taste. Pear has many nutritional as well as many medicinal values. Pear fruit is an excellent source of alcohol hangover which maintains toxicity in the body. Pears are rich in fructose and pectin which help in skin whitening. Good quality of Perry is also obtained from

fresh pears. Pears provide anti-oxidants which are helpful in by destroying reactive oxygen compounds.

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