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# A REVIEW ON THE SIGNIFICANCE OF BERBERIS LYCEUM ROYLE

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**Abstract**
Berberis lyceum royle it's a medicinal plant which fits to the of berberidaceae family. This plant is abundantly found in northern area of Pakistan. Native to India also. This plant is a spiny shrub which grows in mountainous area or on roads at ranging between 900- 2,700m. Widely used by local people for the cure of human disorder. berberis lyceum has many medicinal uses such as diarrhea, throat pain, eye disorder, gingivitis, sub blindness, scabies, pustules, remittent fever etc. this plant have numerous minerals such i.e. sodium phosphorus, iron, zinc, potassium, and copper. The part of this plant for example leaf, stem, root and fruit comprises bioactive compound i.e. protein, fate, vitamin c, tattins, berberine etc. berberis lyceum contain many biological actions with antidiabetic stuff, antioxidant stuff, wound healing propriety also used in bone fracture healing and antimicrobial stuff. As the plant root is rich in nutrient for example calcium and magnesium and that helps the break bone to heal faster. There is also a need of more investigation and search about its medicinal rate.

**Keywords:** *berberies lyceum royle*, medicinal uses, biological activities, bone healing and phytochemical.

## Introduction

These days, food is consider as a powerful medicine not only a base of nutrient. The plant is for fewer well-known plant its plant is termed in English language as berry. Although the berry is named "kashmal" whereas, the roots are known as "Darhald" (S. Ahmed, Shuaib, Ali, Ali, & Hussain, 2017). As a medicinal plant made up of mechanism of beneficial importance and medicines are being used in cure for different disease as long period. In recent times because of disease fight among the obtainable cure disease then appreciation of old fashion drug such as another form of strength maintenance had response the investigation field for the natural deeds or activity of therapeutic plants (Shapiro & Shapiro, 2000). Medical florae are collected for the reason that to use them directly or indirectly for the cure of different diseases. To maintain a good health or fitted health we use a traditional medicinal plants all over the world such as in most developed countries these medicinal plants are widely used. Now a days scientists are searching for the medicinal plant to help those people who are suffering from different diseases.

Beside this in the whole world about 30% medication measures are based on plants (Gul, Shinwari, & Afzal, 2012). Especially in Pakistan local plants are used as very active medicine to medicate the illness and heal various damages. Those plant show extensive range of biological and pharmacological activities. For example anti-fungal, anti-inflammatory and anti-bacterial properties. Collection from the root, bark, root and seeds of berberis lyceum royle plant are used in the preparation of sauce and mixtures in traditional medicine. This medicinal plant (berberis lyceum royle) is not an ever green plant shrub two to four meters tall, leaves are lancelate and closely obviate, with whole or a small large spike like organized opposite on the stem. Flower grow in cluster longer than the leaves. The plant root and bark is used as medicine for sore eyes and swollen, Damaged bone, injuries, healing piles, UN healthy ulcers, etc. in locally way the plant root is dried and they make a powder from it and mix it with oil and apply it on the broken or damaged bones (Imtiaz & Manzoor, 2003).

**Bone Healing of Berberis Lyceum Royle**

From the species of berberis a quantity of alkaloids have been taken out which contains berberine, sindamine, punjabine, palmatine, gilgitine abd chenabine. Different alkaloids recognize are berbemine, oxiberberine etc. other alkaloids were resolute by using RP-HPLC5 Berberine plant have a very wide history of medicinal uses in relation to its significant antimicrobial action against a different type of organisms such as helminthes, chlamydia, becteria, viruses, fungi and protozoans. Berberine produce sedation in rate and aware the cats and potentiated phenobarbitone asleep period. The insulated guinea pig ileum lesser dosages of berberines sulphate potentiated spasmogenic action of prostaglandins this specific study had been intended to assess the bone therapy properties of berberies lyceum through oral medication.

**Bone Healing In Human**

Bone healing drugs have a wide area in biological science. Many researchers or scientists are trying to discover a new drug for curing and healing bone diseases, they are looking toward the herbal medicine. Many type of plants are described in Pakistan because of their bone repairing properties. Berberis lyceum is one of the best example that is being used traditionally for wound healing or bone fracture during new or present studies. Our bone healing or wound healing is a physical process through which our body repair the bone fracture. The normal bone healing in the upper limb in human being is around 42 days and inferior limb is about 65 days only by the allotrophic treatment. There is no complete time outside which a breakage / fracture is in a state of delayed union. It will depend upon the bone where it is fractured. The necessary building block of bone are proteins and minerals. Because of these necessary nutrient within our body it recover the bone breakage or the wound healing very efficiently. There is also most vital and essential nutrients in our body and in the diet like magnesium, calcium and potassium which helps the bone to heal and recover faster.as berberis lyceum is rich in nutrients and essential compounds which have some biological activity and that is why this is helpful for the treatment of bone fracture and healing.

**Berberis Lyceum Royle in the Traditional Folk Medicine With**

By making the root in powder it is taken by mild to cure rigid or for muscle pain in north areas. Plant origin of plant is unpleasant and nasty in flavor that help in cure of sugar, stomach problem, better for coughing, eye wound or irritation of eye, piles and menorrhagia, intestinal astringent, beneficial for curving of broken bones and diarrhea (Kirtikar & Basu, 1999). The

plant this plant root is mixed with Acacia modesta and boil it with water and that will help to cure tooth ache or infected teeth area called gums. Its root is dried very clearly and then crushed it in to a powder to treat mouth disease and rebuilt bone fracture. Berberis lyceum royle foliage is directed in the area of Baluchistan to treat jaundice. In Our north neighbor fruits are assumed that they make poison in kidneys tubules. In Manserah the plant origin of plant that help in treatment of stomach pain and medicate of pharynx disease "soft area at the top of the throat where the passage of nose and mouth connect with the throat". The outer covering of tree is used as for the development of inner side of the wounds, throat cure and chall. Their roots are useful for chronic diarrhea and for painful swollen veins while foliage is helpful as beside jaundice. The root is also used as malaria fever by Indian physicans. This plant mixture is well taught out in the expansion of liver and control the quality of blood cell (spleen). The plant is managed as a febrifuge beside sickly fever and moreover helps absorption and act as aperient. Solution is valued for brokenand which regularly pain very sharply, in expansion of liver and spleen and suggested fever with illness symptom and diarrhea. Releasing the stomach heat, skin disorders such as pimples / redness due to small pimples on skin, diabetes and intestinal pain its root is directly used before breakfast early in the morning. In potohar region berbeis lyceum is propagated as very important vegetation. It's also used by Kashmir people to cure the intestinal pain, urine burning, jaundice, eye disease, diarrhea, piles etc (Dastagir, 2001).

**Distribution and Systematic of Berberis Lyceum Royle**

Berberis lyceum royle is a shrub that looses its leaf every year its length is 2 to 4 meter, and taking two type of leaves lenciolate or obvate-oblong leaves its end is spinous teeth like which is attached on the stem. Its flower is longer than the leaves, the flower is yellow in color.

**Berberis Genus**

The plant berberies lyceum the family of berbericidacease it is the great genus of medicinal plant of about 500 species. This plant is spread in the sub-tropical or temperature of Europe, America and Asia. This species is usually wild and growing in the Himalayan subtropical area its altitude range of about thousand or two thousand and two hundred meters. (Chopra et al., 1998). As this plant have too much attractive leaves and bushes of succulent, edible and acidic fruit that's why people grow it in their gardens for seeming beautiful Rheumatisms (Küpeli, Koşar, Yeşilada, & Başer, 2002).

**Other Uses**

It wood is helpful in making of frames, designing, or carving and for making toys etc. The bees are attracted toward this plant because of the bloom of flowers they also take pollen grains for pollination especially in February to June. Berberis lyceum royle roots and shoots have been used for making dyes of yellow color especially used in lather and cloths. The stems are used in giving bright golden color to butter by boiling the stem with the butter. The root outer skin is used as traditional medicine worldwide for various inflammatory illness cure for example backache, reduce fever and for rheumstism. As the plant berry is more in vitamin, a juice or wine is produced with it and used in malignant, choleric ad pestilential high temperature and diarrhea. Flowers are directly applied to clean old ulcer. The berberis juice is used for gums and teeth ache cure.

**Botanical Features**

Berberis lyceum royle plant is 2 to 3 meter in height: stems are yellowish, minutely pubescent. It's a deciduous plant and having 2.5 to 7.5 mm leaves with different shape such as sessile lanceolate, narrow obviate oblong, or entire, few large spinous teeth and dull green above. Its racemes is shortly stuclked, and it's also longer than leaves, narrow long stalked flowers at the base; their pedicles slender are 2 to 3 cm long. The cork is 5 to 10 cell thick its cambium and xylem are pitted and reticulate. The pollen morphology analysis was carried out by microscope. The diameter of pollen is 38.71 neno meter and its exine width is 2.25 nano meter.

**Morphology**

Berberis lyceum is a shrub and eye-catching which grows very easily.it is dimorphic mean the extended bud forms the arrangement of plant and the small bud is 1 or 2mm long in size, shoot which is erect and semidecidous. The bush of this plant is appealing and is effectively developed bush, which is rigid or semi deciduous and sub rigid with dimorphic young branch (the extended young branch framing arrangement of it and small young branch 1 to 2 mm extended) the plant shoot and branches are watery white and dull in color and cover needle like spines organized to the other hand on the shoot. Berberis lyceum Leaves are splendidly hued, dense, and entire or saw-toothed with to elongate or ovate designed. the plant have raceme of 11 to 16 blooms for each bunch and the roses are bisexual methods take equally male and female tissues those stay cross-fertilized by the flies, more often than not the blossoms are light yellow in shading, conceived in axillary collections and are extended than that of the foliage. The products termed as berries and are ovoid or obovoid-subglobose which get splendid rosy color shading or purple shading when maturing. In ordinary the seed is about are 7 mm extended, four millimeter in thickness and its fruit weigh up is about 227 mg. its shade mash and squeeze is desirable purple in color. Normal the organic product have 2 to 5 pips shading changing as of buttery color to flushed color. The Origin (root) is rigid and is 3-8 cm in scale, fanned and step by step decreasing and once in a while divided longitudinally anyway their fire wood is flat and splendid yellow in shading. Origin of plantis about 3 mili meter dense, remotely inside flat (S. A. Ahmed, Diffenbaugh, & Hertel, 2009).

**Occurrence**

Event Berberis lycium is local to Nepal, all-inclusive disseminated in different pieces of the sphere. This happens richly through the mountainous area locale in the country India and Pakistan. Inside India, in Jammu Kashmir, Timal Nandu, Uttar Pradesh, Sikkim, Madhya Pradesh and other places it has been found its height above sea level is about 850 - 3500 meters. The plant found in Pakistan it is assumed in north zones, for example, Gilgit, Baltistan, hunza, upper hunza Ghizer and Swat etc. It is likewise found in Astore.

**Uses**

The different pieces or parts of Berberis lycium such as origin of plant, foliage, shoot, areal part and organic products has been utilized now total of means. The real requests incorporate their utilization by way of a palatable herbal, helpful utilizations and so on. Few are as below:

**Eatable Uses:**
The herb fruits for the most part expended in crude structure particularly by the rustic populace and are rich wellspring of nutrient C and anthocyanin despite the fact that they have sharp taste. They are not mainstream as the prickly bushes make collecting troublesome of the natural products. The natural products are likewise cooked and made toward protect. Those natural products which exist somewhat acidic the sap is moreover removed. The stem and leaves likewise cooked in certain pieces in the world and from the leaves tea is usually made.

**Therapeutic Use**:
The plant Berberis lycium are known to be antibacterial aperient (mellow diuretic), anticarcinogenic, carminative (lessen fart or removes the gas from our digestive tract), febrifuge (decreases fever) and ophthalmic (treats eye protest).

**Roots**:
Foundation of herb berries is unique of a handful couple of great drugs used by Indian people. The origin of plant its water is utilized for the cure of eye disease such as inflated and for painful eyes, neighborhood individual use it for curing jaundice. Crushed rhizoids bark blended with special type of (zaitun) lubricant and is utilized for kneading damaged skeletons. It is additionally utilized for a solution of injuries, unlucky boils, strong conjunctive etc. this is additionally utilized for harsh poisonous astringent. Dried out rhizoids extricates are additionally a great prescription against sun visual impairment. An unrefined concentrate is arranged from origins of plant by bubbling squashed origin, the bark of origin and inferior shoot with liquid trailed via stressing or focusing to a dull black colored gluey form called rasout. Rasauts are genuinely dissolvable into the liquid. this is blended with spread alum, and with opium and lime-squeeze is connected remotely to the eyelids to fix ophthalmia and other ailments of eye(Dev et al., 2006).this is likewise used for the cure of fever, for example, intestinal sickness and discontinuous fever. It is a mitigating operator which is exceptionally utilized such as solution for the development of liver and spleen. It is likewise utilized such as cure for scrofula, fistula, intense increasing suppurations and other epidermis illnesses (Anjum & Abbas, 2015).

**Fruits:**
Its Fruits are fresh and purgative this is utilized to alleviation of intestinal colic and pharyngitis. Decoction about natural products are likewise utilized such as typhoid and fever.

**Leaves:**
Its leaves are used as tea and also cure the disease of jaundice.

**Stem:**
The stem of this plant are known to be diaphoretic or purgative it is useful in different diseases. The shoot inner surface (bark) is exceptionally viable or in blend with origin of plant is utilized if there should be an occurrence of ear damage, challenging hack, cerebral pain and so on. Its shoot has additionally utilized in treatment of eye disorder and yellowing of body skin or the yellowing of our eye (jaundice).

**Rhizomes**

Berberines have significant organic compound occur in the roots of berberis plant. Which has antibacterial effect. Be that as it may, this berberine isn't considerably consumed from body thus this is utilized remotely to the cure for different painful diseases such as enteric (a painful illness in the intestine which cause diarrhea) diseases particularly bacteriological dysentery. berberines have also the antitumor influence (Duke, 1985).

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