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AN OVERVIEW ON THE PHARMACOLOGICAL ACTIVITIES OF *Myrtus Communis* L.

[1]Mohammad Hashir and [2]Mohd. Akram

PG Scholar, Department of Tahaffuzi wa Samaji Tib
Professor, Department of Tahaffuzi wa Samaji Tib
School of Unani Medical Education and Research, Jamia Hamdard, New Delhi

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ABSTRACT

One of the most significant medications used in Unani System of Medicine since the time of Ancient Greece is *Myrtus communis* Linn. which is also known as Common Myrtle (Family Myrtaceae). It is referred to as Aas and its berries are called *Habb - ul - Aas*. It is frequently cultivated for its enticing fruit, blooms and foliage. Its berries, leaves and essential oil are commonly used to treat a variety of conditions, including asthma, rheumatism, haemorrhages, deep sinusitis, leucorrhoea and cosmetic uses including reducing hair loss. Wines and foods are flavoured with the twigs, berries and leaves. Ripe fruits have always been incorporated into cuisine because of their high nutritional content. Numerous biologically active substances, including tannins, flavonoids, coumarins and the plant contains essential oil, fixed oil, fibres, carbohydrates, citric acid, malic acid, and antioxidants. This paper offers a thorough analysis of its chemical make-up, pharmacological profile, and ethno-medical applications.

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INTRODUCTION

Myrtus, the Greek name for Myrtle and *communis* means common plant growing in groups. The first reference of Myrtle in the Bible is in Nehemiah 8:15 in regard to the celebration of the feast of Tabernacles. The common Myrtle was introduced into Britain in around 1597 and was described by Linnaeus in 1753. Myrtle occupies a prominent place in the writings of Hippocrates, Dioscorides, Galen and the Arabian writers(Sumbul, Aftab Ahmad, et al., 2011) (Kirtikar KR, 1988). This tree is the fruit of Aas, it is initially green and turns black after ripening. Its taste is the combination of sweet, astringent and bitter. Its stem is white and small, depending on the size, there are three stems in some fruits and eight to ten stems in some (Aleem & Anis, 2021) (Kanoun et al., 2014) (Jabri et al., 2016). This fruit has a cooling compound, so it is useful in hot cough due to its sweet taste, in diarrhoea due to its astringency and is diuretic due to its bitterness and it has antidote quality which is useful against various poisons, especially the poisons of scorpions(Sisay & Gashaw, 2017). If you eat it before drinking alcohol or drink its juice in a small amount, then intoxication does not occur.(Aidi Wannes et al., 2010) If the seeds are cooked in olive oil and applied to the body, sweating stops(Rahim et al., 2022). Due to its effervescent properties, the pimples do not come out after being burnt by fire and this is what the ointment prepared from the oil of *Habb-ul-Aas* does.' (Kabir, 2002) (Hachim & Shawi, 2016) If you cook *Aas* in the juice of beet leaves and take it on your head, it becomes a rubber missile(Sisay et al., 2017). Eating passion fruit strengthens the mind. If you prepare poppy seed paste or syrup along with hibiscus and poppy, its use will stop the flow of cold fluids(EL-Zefzafy et al., 2011). Boiled hibiscus on the head and the vexation of alcohol gives relief in severe stomach pain and bilious headache.(In et al., 2013) '(Yazdi et al., 2014)(hakim Najmul Ghani, n.d.)

*Corresponding author: *drmohammadhashir@gmail.com*

Fig-1: Habb-ul-Aas.

Fig-2: Habb-ul-Aas.

SCIENTIFIC CLASSIFICATION

• **KINGDOM**	**PLANTAE**
• **PHYLUM**	**TRACHEOPHYTA**
• **CLASS**	**MAGNOLIOPSIDA**
• **ORDER**	**MYRTALES**
• **FAMILY**	**MYRTACEAE**
• **GENUS**	**MYRTHUS SCOP**

(myritus linn, n.d.) (F. S. Ahmed, 2021) (Aleksic & Knezevic, 2014)

VERNACULAR NAMES AND ETYMOLOGY

SCIENTIFIC NAME	:	*MYRTUS COMMUNIS*, *MYRTUS NIVELLEI*, *MYRTUS PHYLLIREAEFOLIA*.
ARABIC	:	*HABB-UL-AAS*
PERSIAN	:	*TUKHM E MORID*
SOUTH ARABIA	:	HADASS
CHINA	:	XIANG TAO MU
GREEK	:	MIRTIA
ITALY	:	MIRTO
RUSSIA	:	MIRT
TURKEY	:	MERSIN
URDU	:	AAS
HINDI	:	SATA SOVA
SANSKRIT	:	GANDHAMALATI (kabiruddin, 2007)

MEDICINAL AND OTHER USES

If fresh fruits and milk are applied, eye oedema is dissolved. When applying ash and vinegar, it beneficial in haemorrhage. It is also useful in constipation. Habb-ul-as is beneficial in asthma, diarrhoea and tuberculosis when its juice and syrups are used. *Hubb-ul-Aas* strengthens the stomach, quenches thirst and calms vomiting, marks and inflammatory check, but using its juice and sattu along with a suitable laxative is more beneficial in the above disorders. It does not make the waste towards the stomach. (Seema, 2018) The extract is beneficial in urinary irritation and wound of the shoulder. Eating *habb-ul-Aas* also relieves the above mentioned disorders(Muhammad Azam, 2013). The oil of *Habb-ul-Aas* is beneficial in piles, anal fissure and testicles. (Chandra et al., 2020) If it is crushed and eaten with alcohol, the stones in the bladder are broken and the fluid in the bladder is blocked.(Kimbonguila et al., 2019) Crushed and eaten fresh Habb-ul-Aas relieves cramps, intestinal cramps and spasms caused by wounds. Or mix it with fresh juice or astringent wine and poultice, then it is beneficial in the above mentioned diseases.(Sultana et al., 2015) Boiling *habb-ul-Aas* in alcohol helps to relax joints, feet, and burns, and prevents from burning. The way to make habb-ul-Aas is to crush the ripe, black

and fresh and squeeze out its juice, then clean and light it. Sheikh says that no other syrup is useful for constipation, lung pain and cough except *Habb-ul-Aas* syrup. (Paknejad et al., 2021) (Muhammad Azam, 2013)(Activities & Myrtus, 2015).

It is traditionally used as an antiseptic, disinfectant drug and hypoglycaemic agent(Amhamed et al., n.d.). Different parts of the plant have been used in the food industry, for example for flavouring meat and sauces, and in the cosmetic industry. (Bouaziz et al., 2015) (Benchikh et al., 2018) (MIRTO_FRR04.Pdf, n.d.)(Amensour et al., 2009) Dioscorides described the preparation of its oil and prescribed an extract in wine for lung and bladder infections(Snoussi et al., 2011). Foods flavoured with the smoke of myrtle are common in rural areas of Italy or Sardinia. In folk medicine, a decoction of leaves and fruits is used as stomachic, hypoglycaemic, antimicrobic, cough and oral diseases, for constipation, appetizing, antihemorrhagic and externally for wound healing.–(Scholar et al., 2019) The essential oil of the leaves has been esteemed in France as a disinfectant and useful antiseptic, also used in Paris hospitals in certain respiratory and bladder diseases and recommended as a local application in rheumatic disease. The fruit decoction was used to bath new-borns with reddened skin, while the decoction of leaves and fruits was useful for sore washing. The decoction of the leaves is still used for vaginal lavage, enemas and against respiratory diseases. (Nikhat & Fazil, 2020) A fixed oil obtained from berries strengthens and promotes growth of hair due to hair tonic property (Sumbul, Ahmad, et al., 2011) (hakim Najmul Ghani, n.d.) (Hkm. mohd. abdul hakeem, 2002) (Hennia et al., 2018).

Pharmacological actions

It possesses Qabiz (astringent), Habis-i-Dam (Hemostyptic), Mani'-i-'Araq (antiperspirant), Muqawwi-i-Dimagh (stomachic), Muqawwi-i-Qalb (cardiac tonic), Mufarreh qalb (exhilarant), Mujaffif (desiccant), Musaddid (obstruent), Mudirr-i-bawl (diuretic), Mufattit-i-hasat (lithotryptic), Muqawwi-i-chasm, Muqawwi-i-Sha'r (hair tonic) properties.

THERAPEUTIC USES

It is used for management of Khafaqan (palpitation) and for the treatment of Ishal (Diarrhoea), Suda' (headache), Sayalan al-khoon (to stop bleeding), Ramad (Conjunctivitis), Ru'af (epistaxis), Qay (antiemetic), Bawasir (piles), Zahir (dysentery) Taqtir al-Bawl (Dribbling of urine), 'Usr al-Bawl (Dysuria), Quruh al-Mathana (Ulcers of bladder). Its decoction strengthens the roots of the hair and prevents their loss and to make hair blackish. Its decoction is used as Nutool (irrigation) in bone fracture. Decoction of its fruit mixed with olive oil are used to prevent perspiration, relief in hot inflammations, to treat erysipelas, herpes, pimples, urticaria, wounds of the palms and burns. It also acts as a corrective in intestinal abrasions.

ADVERSE EFFECT AND CORRECTIVE

Most of the natural drugs used in Unani system are safe for human use, but some crude toxic drugs are first processed and purified in many ways before use to make them safer. Some time it is used with other drugs to optimize the adverse effect. In crude form myrtle cause headache and insomnia. So, to minimize the adverse effect of myrtle it is used with Rasaut (Berberis aristata DC) and barg-e-toot (leaves of Morus alba).

Substitute

Unani drugs are substituted when they are threatened, costly, scarce, prohibited or difficult to procure. A medicine is prescribed only as a replacement for a particular action, because the replacement may vary from the main drug in certain actions . So, for some specific actions Bekh Anjbar (roots of Polygonum bistorta) and Gul-e-hina (Lawsonia inermis) are used as a substitute for myrtle seeds .

Therapeutic Dose

It is given in the dose of 3-5 g.

MIZAJ (Temperament)

In addition to being distinctive in how it defines the characteristics of drug substances, the Unani definition of Mizaj-e-advia (drug temperament) has stood the test of time by showing to be incredibly helpful in foretelling drug activities when administered or applied topically to people. The Mizaj of myrtle are described as being cold in the first degree and dry in the second degree in Unani literature.(Itrat & Zulkifle, 2014) (Aleem & Anis, 2021)'" (Fahad & Shameem, 2020) (K. Ahmed et al., 2018) (Shamim & Sofi, 2017).

CONCLUSION

Plants have been utilised widely as therapeutic agents for a wide range of diseases since the beginning of time. A thorough review of the literature indicated that M. communis has been used traditionally for a variety of ailments for a very long time. Several conventional usage have been supported by academic studies. Numerous phytochemicals, such as flavonoids,

coumarins, tannins, terpenoids, glycosides, alkaloids, essential oils, etc., that have been isolated from different plants have demonstrated a range of pharmacological activities in various clinical and pharmacological studies, including anti-diarrheal, anti-ulcer, antidiabetic, antihypertensive, antioxidant, antimicrobial, and antimutagenic effects. Using the great resource of traditional medicines, which have a long and established history of treating a variety of diseases, has become a focus of research in recent years. In this area, additional research must be conducted.

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