SANKHAHOLI (Eevolvulus alsinoides Linn): A REVIEW

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ABSTRACT

The Sankhaholi (Evolvulus alsinoides Linn. [EA]) of family Convolvulaceae which is commonly known as Shankhpushpi, in the traditional system of medicine including Unani medicine. It is a perennial herb with a small woody branched rootstock which contains alkaloids: Shankhapushpine and evolvine. Fresh plant of sankhaholi contains volatile oil. It also contains a yellow neutral fat, an organic acid, and saline substances. Therapeutic uses of Sankhaholi EA, mentioned in the Unani medicine are alexiteric (Mufarreh), cardiac tonic (Muqawwi-e Qalb), brain tonic (Muqawwi-e Dimag), digestive (Hazim) Musaffi-e-Khoon (blood purifier), general tonic (Muqawwi-e-am), diuretic (Mudirr-e-Baul), anti-inflammatory (Muhallil-e-waram), and antihypertensive (Dafye Imtella). It is also used in headache, asthma, hyperlipidemia, etc. The present article reviews the pharmacological actions and therapeutic uses of Sankhaholi (EA) present in Unani literature supported with the available clinical and animal studies.

Keywords: Sankhahol; Evolvulus alsinoides Linn; Shankhpushpi; Unani medicine

INTRODUCTION

The traditional system of medicine is now gaining popularity after population became aware of side effects and limitation of synthetic medicine. In both organized (Unani, Ayurveda) and unorganized forms, plants have been utilized as therapeutic agents since old age. Shankhaholi (Evolvulus alsinoides Linn. [EA]) is one of such effective herbs and has been used since ancient times by physicians [1]. Shankhaholi, with flowers shaped like a shankh (conch), is one of Lord Shiva’s sacred instruments often used in ritual worship. It is considered memory enhancer in Unani literature and has been used as rejuvenator, anti-aging, mental stimulant, and tranquilizers. All parts of EA are accepted for medicinal uses as per the Indian pharmacopoeia [1].

Four plants referred to as Sankhaholi in literature they are: (i) Convolvulus pluricaulis Chois, (ii) EA (iii) Canscore deccussate roem, and (iv) C. ternatea [2].

EA, family Convolvulaceae, is an important medicinal plant. Traditionally, it is used for different ailments in India and other countries, and grows in the open and grassy places almost throughout India and other subtropical countries [2]. Various dosage forms and a wide range of original products have been used in the traditional system of medicine and have reported therapeutic activity experimentally and clinically in various scientific journals [1]. The present article reviews the pharmacological actions and therapeutic uses of Sankhaholi (EA) present in Unani literature supported with the available clinical and animal studies.

SCIENTIFIC CLASSIFICATION OF SANKHAHOLI (EA)

<table>
<thead>
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<th>Kingdom</th>
<th>Planate - Plants</th>
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<td>Spermatophyta - Seed plants</td>
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<tr>
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<tr>
<td>Order</td>
<td>Solanales</td>
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<tr>
<td>Family</td>
<td>Convolvulaceae - Morning-glory family</td>
</tr>
<tr>
<td>Genus</td>
<td>Evolvulus L - dwarf morning-glory</td>
</tr>
<tr>
<td>Species</td>
<td>EA - slender dwarf morning-glory [3]</td>
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EA: Evolvulus alsinoides

Vernacular names

<table>
<thead>
<tr>
<th>Urdu</th>
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<tbody>
<tr>
<td>Unani</td>
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<td>Telugu</td>
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<tr>
<td>English</td>
<td>Canscore [4-9]</td>
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</tbody>
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PLANT DESCRIPTION

EA (dwarf morning glory) belonging to the family Convolvulaceae and is a perennial herb with a small woody branched rootstock; stem membranous, more than 30 cm long, prostrate, spreading, slender or rounded, wiry usually covered with long spreading hairs but sometime quite glabrous. Leaves are small numerous 6-20 by 4-8 mm, alternate, elliptic-oblong, obtuse, strongly petioles very short, sometimes almost absent. Flowers light blue, or deep blue very small solitary, or sometime in pairs. Peduncles are very long, filiform, axillary, calyx densely silky, sepals 4 mm long, lanceolate, very acute. Corolla 5 mm long, fruits are usually glabrous, four-valved thin capsules, 3-4 mm diameter [4,10-12,25].

Habitat and distribution

Sankhaholi is a small, hairy, diffuse, and perennial herb. It grows in open and grassy places throughout India and other sub-tropical countries.

Chemical constituent

The plant of sankhaholi contains alkaloids: Betaine, shankhapushpine, and evolvine. Fresh plant of sankhaholi contains volatile oil. It also contains a yellow neutral fat, an organic acid and saline substances. An unidentified compound has been isolated. Scopoletin, scopolin, umbelliferone, 2-methyl-1,2,3,4-butatanetol, ketolic acid esters with alcohols and palmitic, stearic, oleic, 8-methyldecanoic, and heptadecanoic acids have been reported [13,14]. 2,3,4-trihydroxy-3methylybutyl 3,2-propenoate (1) and 1,3-di-0-cafeoyl quinic acid methyl ester; caffeic acid, 6-methoxy-7-O-glucopyranoside coumarin,
2-C-methyl erythritol, kaempferol-7-O-gluco pyranoside, kaempferol gluco pyranoside, and quecitine-3-O-gluco pyranoside were reported from n-BuOH soluble fraction from the ethanol extract of EA [15,28].

**Temperament (Mizaj)**
- Bawid Rataub [7,16]
- Har Rataub [8,17]

**Therapeutic dosage (Miqdar-e-Khurak)**
- 6-9 g [16,17]
- 3-5 g [8]
- 3-8 g [18]

**Medicinal action of Sankhaholi (Afzal wa khawas)**

- Anthelmintic (Qatlke Deedan) [4,5,6,11]
- Alesteric (Mufarreh) [4,9]
- Anti-diarrheal (Dafaye ishal) [4,9]
- Aphrodisiac (Muqawiwi-e-Bahi) [9,27]
- Appetizers (Mushtahi) [9-11]
- Brain tonic (Muqawwi-e-Dimaj) [4,5,7-9,16,17,27]
- Cardiac tonic (Muqawwi-e-Qalb) [7,17,27]
- Laxative (Molayyen) [7,9,16,17]
- Hepatoprotective (Mudirr-e-Khoon) [7,8,16,17]
- Antidiabetic activity [21,36]
- Antifungal activity [31]
- Antidepressant activity [32]
- Antiulcer activity [35]
- Antioxidant activity [33,34]
- Antibacterial activity, and antioxidant activity, antifungal activity, immunomodulator, anti-stress activity, hypoglycemic activity, and anti-diabetic activity [21,36]
- Anthelmintic, anti-inflammatory, anti-emetic, and astringent actions and uses of Sankhaholi (EA) which are mentioned in the Unani system of medicine.
38. Alamgir M, Shaikh JU. Recent advances on the ethnomedicinal plants as immunomodulatory agents. Ethnomed Source Complement Ther 2010;2010:228-44.