Asl (Honey) An Important Nutraceutical, of Traditional Unani Medicine: A Review in The Context with Clinical Research

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ABSTRACT

This review paper aims to explain the morphology, nutritional benefits, ethnomedicinal, pharmacological actions, and therapeutic uses of Asl (Honey). Thus, it will provide significant opportunities for future research to explore its Nutraceutical potential and develop better medicine for Eczema, Diaper Dermatitis, Psoriasis, and Burn. We reviewed the published literature on Asl (Honey) using bibliographic databases such as PubMed, Google Scholar, Science Direct, and web of science, and Unani Classical literature books such as Ibn Baitr, Al Jamai-ul-Mufradat al Advia wal Aghzia, Najmulghani AH. Khazain-ul-advia, Ibn Rushd kitab ul kuliya, Ibn Rushd kitab ul kuliya, Ibn Rushd kitab ul kuliya, Ibn Rushd kitab ul kuliya, Ibn Rushd Since ancient times, t. Asl (Honey) has been administered as an appetizer, aphrodisiac, cicatrizant, anthelmintic, anti-inflammatory, analgesic, Nutrient, deobstruent, lithotriptic, tonic for the stomach, and antiseptic, most often by practitioners of traditional Unani medicine. Asl and its formulations, according to Unani medicine, can help treat Eczema, Diaper Dermatitis, Psoriasis, Burn, and other skin disorders. Some clinical research also highlights the possibility of such an effect, e.g., Honey is a natural anti-angiogenic and anti-inflammatory agent, corneal scratching caused by surgery and exotoxin-induced inflammation of the cornea when applied topically. Albeit more detailed study is necessary to back up these sayings.
INTRODUCTION:

Asl (Honey) has a specific colour, flavour, aroma, and thick consistency; the nectar of flowers produces it. Honey bees of various types produce Asl (Honey) like Apis mellifera, Apis data, Apis indica, etc. Unani physicians have used asl (Honey) since antiquity. It is used as medicine for various diseases and used in various formulations for preservation and nutrition purposes. [1]

Honey contains 95% carbohydrates and other substances like amino acids, proteins, minerals, polyphenol, vitamins and aromatic substances. [2]

Prophet Mohammad (PBUH) recommended Asl Khalis (Honey) as antidiarrheal and desiccant (wound healing). [3]

Honey contains various substances like glucose, maltose, fructose, trisaccharide, water, and other carbohydrates such as sucrose, vitamins, proteins, mineral, yeast, enzymes, and other Microorganisms and organic acids in a small number of organic acids. Honey contains a high level of tetracycline, phenolic compounds, hydrogen peroxide, due to which it acts as an antimicrobial agent. [4]

MATERIALS AND METHODS:

A review of literature on Asl (Honey) was undertaken using the bibliographic database viz. Pub Med, Google Scholar, Science Direct and science web, and Unani Classical literature books, Ibn Baitār ZAAAA. Al Jamai- ul- Mufradāt al Advia wal Aghzia, Najmulghani AH. Khazain- ul- advia, Ibn Rushd kitab ul kulliyat. The search was conducted using the terms Asl, Honey, As Nutrient, and therapeutic agent.

VERNACULAR NAMES:

Asl (Honey) is called Asal, or Asl – un Nahal in Arabic: [5,6,7] in Persian it is known as Shehdaa, or Angbeen.[5,6,7]; in Unani the Honey is better known as Mali, or Alkaulees or Anjabin [8] Punjabi name of Honey is saht. In Gujrati, its name is Madh. [5] It is called Madhu is in Sanskrit and miel in Latin. [5] Madda, Pehap Ras are named in hindi language. In Bengali, it is better known as Madhu or madh and in Marathi, it is called Madh. The Urdu language is known as shahad, and in Turkish known as desa and taenu in Telugu. In English, Honey and siryani as Bal.
Physicochemical properties:

**Appearance:**

Thick liquid of, syrupy base with a yellowish-brown or light yellowish color (Anonymous 1988)\[^9\] fig.1

**Taste and odor:**

Sweet and specific odor\[^9,6\]

Descoridus describes that best Asl (Honey) is fragmatic, very sweet, tasty, and red\[^8\]

**Specific gravity:** 1.37 – 1.4 \[^8\]

Proteins 0.3% Water: 20.6% \[^9\] Carbohydrate: 79.5% \[^9\]

Calcium: 5.0% Minerals 0.2% phosphorus: 16% \[^9\] Energy: 319 kcl /100gm \[^9\] Ash: 0.5% \[^9\]

**Mizaj (Temperament):**

Hot and wet 1\(^{st}\) degree. \[^10\]

Fresh Honey: Har(Hot) 1\(^{st}\)-degree Yabis (Dry)2\(^{nd}\) degree.\[^6\]

Few days old: Har yabis(Hot and Dry) 2\(^{nd}\) degree. \[^11,6,8\]

Few years old: Har (Hot) 3rd-degree Yabis (Dry)2\(^{nd}\) degree.\[^6\]
Muzir (Harmful Effects):

For hot and bilious temperament peoples.\(^6\)

Headache, Vomiting, and Thirst.\(^{10,6}\)

Musleh (Correctives): Vinegar, aab anar tursh(punica grantum juice), lemon juice(citrus aurantifolia), coriander(coriandrum sativum).\(^{10,6}\)

Substitutes (Badal):

Doshab Anoori (juice of vitis vinifera), Ripened dates. Jaggery syrup.\(^{10,6}\)

Nafa Khas: (Main Actions):

Mukhrij balgham (excretes balgham) (useful in most of the cold diseases and phlegmatic temperament persons)\(^{10,6}\)

Miqdar khurak (Dosage): 2 to 5 tolas (20 -50 gms).\(^{10,6}\)

Compound Formulations: (Murakkabāt):

Qiwam (Basic Solution of Particular consistency) for Majun, Itrifal, Laoq, Laboob, Mufarrehat, and Tiryaqat(all semi-solid formulations) is made by combining water and Honey and heating on a low heat until the mixture reaches the desired consistency.\(^{12}\)

Anushdaru: \(^{12}\)

Sikanjbeen: Feesaghurus (Pythagoras) prepared it for the first time. The mixture of Sirka (Acetic acid) and Angbeen (Honey), is called Sikanjbeen. It Sikanjbeen sada is prepared with sugar also.\(^{12}\)

Af‘āl (Pharmacological actions):

Analgesic (Musakkin-e-Auja’a)\(^6\)

Nutrient (Mughazzi).\(^{10,6}\)

Muhallil-e-Waram. (Anti-Inflammatory)\(^{10}\)

Jali (Detergent).\(^{10,6}\)
Mufatteh Sudad (Deobstructent)$^{[10,6]}$

Mufattit e Hisa’t (Lithotryptic). $^{[6]}$

Muqawwi e Mida (Tonic for stomach). $^{[6]}$

Mushtahi (Appetizer). $^{[10,6]}$


Hadim (Digestive). $^{[10,6]}$ fig :1

Mulayyen (mild laxative). $^{[10,6]}$Mudirr haiz (menorrhagic). $^{[10,6]}$

Mudirr labn (milk producing). $^{[10,6]}$Muqawwi basr (strengthen eye sight). $^{[10,6]}$Muqawwi dimagh (strengthen brain). $^{[10,6]}$Muqawwi meda (strengthen stomach). $^{[10,6]}$Jali (detergent). $^{[10,6]}$

**Therapeutic Uses: Moalajat Iste’mālāt.**

Istisqa (Ascites)$^{[10,6]}$Unhealed ulcers (quruh muzmina). $^{[10,6]}$Dysuria.$^{[6]}$Laqwa (Bell’s palsy). $^{[8]}$

Paralysis (Falij). $^{[8]}$Productive cough (Sual e Balghami). $^{[8]}$Cataract.$^{[6]}$Otitis media. $^{[8]}$

Waja al Uzn (Earache). $^{[6]}$

Wounds (Qurooh)$^{[6]}$Qubaa(Ring worm). $^{[8]}$Waram e Lauzatain Tonsillitis (Waram e Lauzatain)$^{[8]}$

Jaundice (Yaraqan) $^{[6, 8]}$

Expectorant (Munaffith e Balgham). $^{[8]}$

Yarqan (jaundice):Asl with kundur(Boswellia serrata Roxb) it is beneficial in jaundice and azm tihal (spleenomegaly): $^{[6]}$Sore throat (Khushunat e Halaq). $^{[6]}$

Chest diseases (Amraz e Ria). $^{[8,6]}$

sexual debility (Du’ f al Bah)$^{[6]}$

Renal calculi (Hisat e Kuliya )$^{[7]}$
Intestinal worms (Intestinal worms). [7]


Kalaf (melisma), [13] Beneficial with Qust (saurusia costus) as local application in kalaf. [13]

Quba. [6]

Diseases of females (Amraz e zanana). [8]


Deafness (Behra pan). [9]

Colitis and intestinal ulcer. [8]

Boils (dummul): Applied as a paste on the boils. [8]

Unhealed ulcers (quruh muzmina): applied as a paste with roghan gul (oil of rosa damascene flower). [13]

Fatila (pessary) made with anzroot (Astragalus sarcocolla), Ghee (clarified butter) and Asl is beneficial in otorrhoea (sailan uzn). [13]

Also useful in severe deep wounds with zarawand taweel (Aristolochia longa) and flour of pea (peasum sativum). [8]

Dafe daad (antifungal) with soya (dill) (Anethum graveolance). [6]

Insect bites: Asl is used with roghan e gul (rose oil) as a local application. [13]

A paste treats bruises of blunt injuries of namak (sodium chloride) and Honey. [8]

Kalaf (freckles): used with sirka (vinegar) and namak (sodium chloride) as a paste. [8]

Simne mufrit (Obesity): used with zeera water (cumin water). [6]

Muqawwi Bah (Emenogauge) with onion juice (allium cepa). [8]

Colitis: used with aab bartang (Plantago major Linn.). [6]

Warm Halaq (pharyngitis): used as a gargle. [8]

Aashob e chashm (Conjunctivitis). [8]
Diseases of eyes as a local application.\[6\]

Najmul Ghani, a great Unani physician, advised a formulation of Asl (Honey) for local application in Eczema (Nār Fārsī).\[13\]

Mudirr bawl (diuretic): works as diuretic if boiled with water.\[13\]

Diagnosis of pregnancy:

If pregnant women use it early in the morning, it causes severe pain. This fact is sometimes used for pregnancy diagnosis.\[9\]

Muqawwi e meda (strengthens stomach) with mastagi (pistacia lentiscus). \[6\]

Prevention from bahaq (pityriasis): Joshanda (decoction) of Maul Asl (honey water), Ersa (iris ensata thumb), and baqla (sida cordifolia) is useful in the prevention of bahaq (pityriasis).\[14\]

Flavonoids in Honey have been shown to have a variety of biological activities, including antibacterial, antiviral, anti-inflammatory, anti-allergic, and vasodilator properties. Additionally, flavonoids inhibit lipid peroxidation, platelet aggregation, capillary permeability and fragility, and enzyme system activity such as cyclooxygenase and lipoxygenase.\[15\]

**Scientific studies:**

**Antibacterial activity:**

Honey has antibacterial properties due to low water activity results in osmosis, hydrogen peroxide effect, and high acidity.\[16\]

Honey, olive oil, and beeswax formulations have antibacterial properties and treat diaper dermatitis, psoriasis, eczema, and skin fungal infection.\[17\]

When applied topically, Honey has anti-angiogenic and anti-inflammatory properties in surgically induced corneal abrasion and exotoxin-induced keratitis.\[18\]

**Antioxidant effect:** In colitis, the damage to the colon has been reduced by Honey.\[19\]
Immuno-modulatory activity:

The effects of Asl have been linked to the presence of an unknown component that induces the release of inflammatory cytokines from monocytic cells (Honey). The purpose of this study was to gain a better understanding of Asl reported in vitro effects. The endotoxin content of natural Asl was discovered to be the sole explanation for the in vitro immune-modulatory effects of Asl. [20]

Antifungal activity:

Amylase, which is present in Asl Khalis, increases the osmotic effect of the medium by increasing the sugar content, thereby increasing antifungal activity. [21]

Activity in wound healing:

By acting as a hyperosmolar medium, Asl (Honey) inhibits bacterial growth. Due to its high viscosity, Honey provides a physical barrier, and the presence of the enzyme catalase provides antioxidant properties. Its high nutritional content increases the supply of local precursors, promoting epithelialization and angiogenesis. Honey possesses these characteristics, which make it an excellent and economical burn dressing. [22]

Honey-based salad dressings provided comparable oxidation protection to EDTA, as measured by the peroxide and panisidine qualities. [23]

Honey, in conjunction with basic wound care procedures, can be used to treat diabetic foot ulcers. [24]

The research backs up the idea that utilizing Honey to treat wounds has clinical benefits. [25]

Antitussive activity:

Asl (Honey) may be an effective treatment for pediatric upper respiratory tract infections that end up causing coughing and sleep problems. [26]

Antiulcer properties:

Asl (Honey) protects against stomach ulcers induced by nonsteroidal anti-inflammatory drugs (NSAIDs). It also reveals that the Helicobacter pylori, which is thought to cause peptic ulcers, has been killed by Asl (Honey). [27]
Activity against cataracts:

The synthetic flavonoids luteolin 4'-glucoside, luteolin 3'-7-diglucoside, and orientin prevented cataracts in ovine lenses after 24 hours of incubation in 45 percent hypotonic HBS. It could be considered preliminary evidence for stingless bee Honey’s possible anti-cataract effects. [28]

RESULTS AND DISCUSSION:

Asl (Honey) has been used as a sweetener and as an ingredient in multidrug formulations. It is used as Appetizer Aphrodisiac, Cicatrizant antihelmintic, anti-inflammatory, analgesic, Nutrient, Deobstruent, Lithotryptic, Tonic for the stomach, Antiseptic Since ancient times, it has been used dominantly by practitioners of classical Unani medicine. Unani classical literature describes its actions as cleanser (Jālī), Mudammil Qurūh (Cicatrizant) antihelmintic (Qātil-i-Dēdān-iAm‘ā), Muhallil-i-Awrām (anti-inflammatory), Musakkin-i-Alam (analgesic), Anti-inflammatory (Muhallil-e-Waram), Analgesic(Musakkin-e-Auja’a), Mughazzi (Nutrient)Mufatteh Sudad (Deobstruent) Lithotryptic (Mufattit e Hisa’t), Muqawwi e Mida (Tonic for stomach)Mushtahi (Appetizer) Muqawwi e Bah (Aphrodisiac) Daf e Taffun (Antiseptic. There is adequate data about the morphometric, physico-chemical, and ethnomedicinal properties of Asl (Honey), but there are few pharmacological and clinical studies. The available reports on Asl (Honey) and its products mainly though has shown good results in Antibacterial activity, diaper dermatitis, psoriasis, eczema, and skin fungal infection, Anti-angiogenic and anti-inflammatory properties, Antioxidant effect, Immuno-modulatory activity Antifungal activity, Wound healing activity, Antiulcer activity Antitussive activity, Anticataract activity Since small patient groups have limited previous studies, conclusive results cannot be approached.

CONCLUSION:

Honey (Asl) is nutrient-dense and possesses various beneficial properties, including antioxidant, anti-inflammatory, antibacterial, and wound healing. By increasing testosterone levels, it increases sperm count and fertility rate. The primary concern in contemporary medicine is the widespread use of Honey (Asl) in various compositions and the scarcity of clinical research. Additional research should be conducted to determine the efficacy of the actions described by ancient Unani physicians.
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Conflict of Interest:

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