

INTERNATIONAL JOURNAL OF INSTITUTIONAL PHARMACY AND LIFE SCIENCES

Pharmaceutical Sciences

Review Article.....!!!

Received: 31-03-2017; Revised: 21-04-2017; Accepted: 22-04-2017

AL-HIJAMAH (WET CUPPING) AND IT'S INDICATIONS

Shahid Suhail^{1*}, S. Shakir Jamil², Javed, Jameel³, Shazia Jilani⁴, Shagufta Parveen¹

¹M.D. Scholar, Department of Moalajat, Faculty of Medicine (U) Jamia Hamdard

²Professor, Department of Moalajat, Faculty of Medicine (U), Jamia Hamdard

³Associate Professor, Dept. of Orthopaedics Hamadrd Institute of Medical Sciences & Research Jamia Hamdard

⁴Assistant Professor, Department of Moalajat, Faculty of Medicine (U) Jamia Hamdard.

Keywords:

Unani medicine, wet
cupping, efficacy,
regimental mode

For Correspondence:

Shahid Suhail

M.D. Scholar,
Department of Moalajat,
Faculty of Medicine (U)
Jamia Hamdard

ABSTRACT

Hijamah(Cupping therapy) is one of the oldest natural healing therapies in the world. *Hijamah* (cupping) has been used for centuries to treat various human diseases and it is considered that this traditional treatment has the potential to treat many kinds of diseases. In Unani system of medicine wide literature is available about use, indications and efficacy of the *hijamah* (cupping). Out of the types, *hijamahbilShart* is more common and is indicated to manage a range of disorders according to knowledge and experience of classical scholars. *HijamabilShart* (Wet Cupping) has proved very effective to manage various diseases like osteoarthritis, sciatica, spondylitis, varicose vein, migraine, hypertension etc. According to diseases, involvement of system and severity, scholars mentioned site for the therapy *HijamabilShart*(Wet Cupping). In this paper an attempt is made to list the indication of *HijamabilShart* (Wet Cupping) according to the site and diseases in the light of Unani system of medicine.

INTRODUCTION

Hijamah come from the original Arabic word “*hajm*” which means *hajm-al-Mareez* “to suck”. It is basically originated from *hajm-al-hayya* i.e., snake bite means when snake bite on the skin it sucks blood from it. And *hajm-al-sadiyei* i.e., sucking of breast by neonate during breast feeding. Likewise, in *Hijamah* blood is sucked after applying cup to specific area of the body.¹ As such there is no definition of *hijamah* (cupping) in Unani classical literature. Keeping in view above all aspects, *Hijamah* (cupping) can be defined as a Unani regimenal mode of treatment which is carried out by application of cup shaped glass or plastic vessels on the body surface, creating vacuum by fire or by special suction apparatus, in order to divert the material from diseased part or to evacuate the morbid material.² Depending upon whether incision is given or not *hijamah* (cupping) is classified in two types-

HijamabilShart: (Wet Cupping/ Cupping with incision/ scarification)

HijamabilaShart: (Dry Cupping/ Cupping without incision/ scarification)^{3,4,5,6,7,8,9,10,11}

HijamabilShart: (Wet Cupping) is commonly used type of *hijamah* (cupping) for management of various diseases. It is therapy which was practised from ancient time for the treatment and cure of several diseases as earliest evidence for the description and use of *hijamah* (cupping) was found in Egyptian literature. The oldest medical text book, written in approximately 1550 BC, in Egypt, describes bleeding by *hijamah* (cupping) to remove the foreign matter from the body.¹⁰ *HijamabilShart* (Wet Cupping) is extensively favoured, indicated and by Unani scholars as they practised this therapy for the management of countless diseases. Various Unani scholars define and explained the process of *HijamabilShart*: (Wet Cupping):

AbulQasimZahrawi/ Abulcasis (936-1036AD) When we perform *HijamabilShart* (Wet Cupping) blood oozes out from minute ramification of blood vessels in the muscles fibres, without producing weakness of body like *fasd* (venesection).¹²

Ibn-e-Sina/Avicenna (980-1037AD) stated in his book *Al-Qanoon fit-Tib/Alcanon* that *HijamabilShart* (Wet Cupping) purifies the neighbouring skin more effectively than *fasd* (venesection). It withdraws thin blood rather than the thick blood.^{13,14,15,16}

Ibn-e Hubal Baghdadi has defined *HijamabilShart* (Wet Cupping) as a process which helps in *istifragh-e-dam* from the small vessels of the skin & muscles and reduces the *Intila* (congestion) from the applied part.¹⁷

Cupping is described as procedure of application of a glass or bamboo vessel to the skin from which air has been exhausted by heat or of a special suction apparatus in order to draw blood to the surface.¹⁸

Along with description, definition and mechanism of action, indication for *HijamabilShart*(Wet Cupping) according to site and diseases are also discussed in classical literature. These indications are listed as-

Sites and indications of *HijamabilShart* (Wet Cupping)

S.R.	SITES		INDICATION		
1.	Hamah or Yafookh (Sinciput or mid of the head)	Head	<i>Ikhtilat-e-Aql</i> (Delirium) ^{13,16} <i>Duwar</i> (Vertigo) ^{19,20,21} <i>Shaib</i> (Senility). ^{13,16} <i>Siql-al-Badan</i> (Heaviness of body) <i>Siql-al-Raas</i> (Heaviness of head) <i>Hararat-e-shadeeda-fil-ras</i> (Severe hotness of head), <i>Duwar-e-Damwi</i> (Sanguineousvertigo), ^{19,20,21} <i>Kundi-hawas</i> (Weakness of sense organs). ²²		
		Face	<i>Kamudat al-wajh</i> (Facial pigmentation). ²²		
		Eye	<i>Jarab al- 'Ayn</i> (Trachoma), <i>Sabal</i> (Vascular keratitis). ^{19,20,21'22}		
		Kidney	<i>Waja ' al-Kulya</i> (Renal pain) ^{19,20,21}		
		Testis	<i>Waram-e-Khusya</i> (Orchitis) ^{19,20,21}		
		Skin	<i>Juzaam</i> (Leprosy) ^{19,20,21}		
2.	Qamhadwah (occiput)	Head	<i>Siql-al-Raas</i> (Heaviness of head) ¹⁹ <i>Ikhtilat-e-Aql</i> (Delirium) ²² <i>Duwardamwi</i> (Sanguineousvertigo) ²² <i>kundi-e-hawas</i> (Weakness of sense organ) ^{20,21} <i>Suda</i> (headache) ^{4,8, ,20,21'23}		
		Eye	<i>Jarab al- 'Ayn</i> (Trachoma) ^{19,20,21} <i>Sabal</i> (Vascular keratitis) ^{19,20,21} <i>Sulaq</i> (Blepharitis) ^{19,20,21} <i>Ramad</i> (Conjunctivitis) ^{4,8} <i>Qurh al- 'Ayn</i> (Ulcer of eye) ^{20,21} <i>Kumna</i> (Amaurosis) ^{20,21} <i>Juhuz al- 'Ayn</i> (Exophthalmos) ²³ <i>Mursarj</i> (Iridoptosis) ¹⁶ <i>Siql-al-Ajfaan</i> (Heaviness of Eyelids) ²³ <i>Bamni</i> (Blepharitis/tarsitis). ²³		
		Face	<i>Kamudat al-Wajh</i> (Pigmentation of faces) ^{20,21}		
		Ear	<i>Itihab al-Udhun</i> (Otitis), <i>Waja ' al-Udhun</i> (Otalgia), ^{19,22} <i>Siql-e-Samaa't/Siql-e-Uzn</i> (Dysacosis) ^{20,21} <i>Hikka al-Udhun</i> (Pruritus of ear) ^{20,21}		
		Mouth	<i>Waja ' al-Fam</i> (Pain in mouth). ^{20,21}		
		Nose	<i>Bakhr al-Anf</i> (Ozaena) ^{20,21}		
		3.	Nugra (Nape)	Head	<i>Siql-ur-Ras</i> (Heaviness of head). ^{5'12,20,21} <i>Sarsam</i> (Meningitis) ⁴ <i>Suda</i> (Headache) ⁴ <i>Suda</i> (Frontal Headache) ^{8,18}
				Eye	<i>Ramad/Ashob-i-Chashm</i> (Conjunctivitis), ^{4,8'22} <i>Sabal</i> (Vascular keratitis)

			<i>Sulaq</i> (Blepharitis), ^{12,20,21,22} <i>Siql-al-hajibain</i> (Heaviness of eye brow and eyelids) ^{16,22} <i>Jarab al- 'Ayn</i> (Trachoma) ¹⁶ ,
		Face	<i>Kalaf</i> (Melasma/Cholasma), <i>Barash</i> (Freckle), <i>Namash</i> (Naevus) ^{20,21,22}
		Ear	<i>Waja ' al-Udhun</i> (Otalgia) <i>Iltihab al-Udhun</i> (Otitis) ¹⁸
		Mouth	<i>Bakhr al-Fam</i> (Halitosis), <i>Qula 'a</i> (Stomatitis/ Thrush). ^{4,8,11,16,21}
		Throat	<i>Khunaaq</i> (Diphtheria). ⁴
4.	<i>Akhdaiyin</i> (lateral side of neck)	Head	<i>Irtiyas-e- Ras</i> (Head tremor) and other diseases of head etc. face, teeth, jaw, ears, eyes, throat and nose. ^{11,14,16,23} e.g. <i>Waj-al-Ras</i> (headache) ¹² <i>Shaqiqa</i> (Migraine). ^{12,19}
		Teeth	<i>Waja ' al-Asnan</i> (odontalgia/Toothache). ^{20,21}
		Lingua	<i>Waj-al-Lisan</i> (Gingivalgia,lingual pain). ^{20,21}
		Gum	<i>Waram al-Litha</i> (Gingivitis) ^{20,21}
		Eye	<i>Ramad</i> (Conjunctivitis). ^{20,21}
		Ear	<i>Warm al-Udhun</i> (Otitis). <i>Waja ' al-Udhun</i> (Otalgia) ^{20,21}
		Throat	<i>Waja ' al-halaq</i> (Sore throat/pain throat) <i>khunaaq</i> (Diphtheria) ^{12,17,19}
		Nose	<i>Iltihab al-Anf</i> (Rhinitis) ¹⁹
	<i>Zuqun/ziqan</i> (chin)	Head	<i>Munaqqisar</i> (Head cleanser) ^{10,11,14,16,19} <i>Sara</i> (Epilepsy) ¹⁸ <i>Suda</i> (Headache) ¹⁸
		Mouth	<i>Munaqqifakkain</i> (Upper /lower mandible cleanser) ^{10,11,14,16,23} <i>Bakhr al-Fam</i> (Halitosis) ^{18,22} <i>Waram al-Lisan</i> (Glossitis) ²² <i>Buthur al-Fam</i> (Popular stomatitis) ^{18,22} <i>Qula 'a</i> (Stomatitis/ thrush) ^{12, 18,19,22} <i>Waram al-Litha</i> (Gingivitis) <i>Akila al-Fam</i> (Cancrumoris) ^{20,21,22}
		Teeth	<i>Waja ' al-Asnan</i> (odontalgia/Toothache). ²³
		Throat	<i>Waja ' al-halaq</i> (Sore throat/pain throat) ^{5,17,19,23} <i>Waram al-Lawzatayn</i> (Tonsillitis) ²²
6.	<i>Al-Uznain</i> (Ears)	Head	<i>Suda 'haarmaddai</i> (Headache due to body material) e.g. ²² <i>Sudadamwi</i> (Congestive headache), <i>Sudasafrawi</i> (Bilious headache), <i>Siql-al-Rasdamwi</i> (Sanguine heaviness of head) ^{20,21,22}
		Eyelids	<i>Waja-al-Ajfan</i> (Blepharitis), <i>Siql-ul-Ajfan</i> (Pain and heaviness of eyelids). ¹⁶
7.	<i>Kahil</i> (upper back)		<i>Amraz-e- Sawdawi</i> (Disease blackhumour/melancholic humour)

		Lungs	<i>Zeeq al-Nafas</i> (Bronchial asthma) ^{20,21,22} <i>Amraz-e- Sadr damwi</i> (Sanguineous thoracic diseases) <i>Rabu-e- Damwi</i> (Sanguineous asthma) ^{11,14,15,16} <i>'Usr al-Tanaffus</i> (Dyspnoea/breathlessness.) <i>Suaal</i> (Cough) <i>Imtela</i> (Congestion) ¹²
		Heart	<i>Khafaqanhar</i> (Palpitation due to the impaired temperament of <i>Dam</i> (Blood)) ¹⁹ <i>Safr</i> '(Yellow bile) ^{20,21,22} <i>KhafaqanDamwi</i> (Sanguineous palpitation) ¹⁸
		Throat	<i>Waja ' al- halaq</i> (Pharyngeal pain). ^{11,14,15,19} <i>KhunaqDamwi</i> (Sanguineous diphtheria) ²²
		Shoulder	<i>Waj-al Katif</i> (Shoulder pain). ^{11,14,15,19}
	<i>Nahiz</i> (Superior border of the shoulder blade) Right side	Liver	<i>Auja-ul-kabidharrah</i> (Hepatalgia due to hotness), <i>Waram al-Kabidsafrawi</i> (Bilious hepatitis) <i>Waram al-KabidDamwi</i> (Sanguineous hepatitis) ^{19,20,21,22}
	Left side	Spleen	<i>Waram-e-tehal</i> (splenitis) <i>Masmoom</i> (Poisonous person) ^{19,20,21,22}
10.	<i>Mankibain</i> (Rt.Shoulders)	Liver	<i>Auja-al-Kabid Harr</i> (Hepatalgia due to hotness), ²²
	(Lt. shoulder)	Spleen	<i>Auja-ut-Tihal</i> (splenalgia/ splenic pain) <i>Humma-e-Rub</i> (Quartan fever). ²²
11.	<i>Bain al-Sadyain</i> (Inter breast)	Uterus	<i>Kasrat-i- hayz</i> (Metrorrhagia Menorrhagia, polymenorrhoea). ^{16, 20,21}
12.	<i>Rusgh al-Yadain</i> (Wrist joint)	Skin	<i>Kharish tar</i> (Cold itching) e.g. <i>Jarab</i> (Scabies) <i>Boil, Hikka</i> (Pruritus) <i>Sa 'fa</i> (Favus/ prurigo) ²¹ <i>Shiqaq-fil-Yad</i> (cracked palms). ^{16,22}
13.	<i>Qutm</i> (Lumbar region)	Skin	<i>Dammal-e-Fakhiz</i> (carbuncle of gluteal region) <i>Jarb-e-Fakhiz</i> (Scabies of gluteal region) <i>Busur-e-Fakhiz</i> (Furunculosis of gluteal region) <i>Hikkat-ul -Zahr</i> (pruritus on back) ^{10,13,14,15,16}
		Joints	<i>Niqris</i> (gout), <i>Da 'alFil</i> (Elephantiasis/Filariasis) ^{10,13,14,15,16}
		Anus	<i>Bawasir</i> (Piles/Haemorrhoid) ^{10,13,14,15,16}
		Bladder	<i>Riyah-ul-Masanah</i> (Emphysema of the bladder) ^{10,13,14,15,16}
		Uterus	<i>Riyah-ul- -Reham</i> (Emphysema of the uterus). ^{10,13,14,15,16}
14.	<i>Us'us</i> (coccyx)		<i>Bawaser</i> (Haemorrhoids), Wounds of the lower parts of the body. ¹²
15.	<i>Warikain</i> (Buttocks/ Hip)	Digestive System:	<i>Bawasir</i> (piles/haemorrhoid) <i>Zaheer</i> (Dysentery), <i>Waram al-Maq'ad</i> (Proctitis) <i>Zarbban-ul-Maq'ad</i> (Anal throbbing). ^{20,21}
		Bleeding	<i>Dam-e-haiz</i> (Menstruation)

		Disorder	<i>Sailan-ul-dam min-al maqad</i> (Anal bleeding) <i>UrooqiSailan-ul-Dam</i> (Hemorrhage uterine blood vessels), <i>Bawl al-Dam</i> (Haematuria) <i>Nazf-ud-Dam</i> (Haemorrhage). ^{20,21}
		Kidney	<i>Hararat-ul -Kilyatain</i> (Hotness of kidneys), <i>Hurqa al-Bawl</i> (Burning micturition). ^{20,21}
		Uterus	<i>ItihabKhusya al-Rahim</i> (Oophritis) <i>Natn al-Rahim</i> (Foul smelling yellowish discharge from uterus) <i>Hikka al-Rahim</i> (Pruritus uteri). ^{20,21}
		Skin	<i>Dammal-e-fakhiz</i> (Carbuncle of gluteal region) <i>Jarb-e-fakhiz</i> (Scabies of gluteal region). ^{20,21}
	<i>Maq'ad</i> (Anus)	Anus	<i>Auja-e-Maq'ad</i> (Proctalgia / anal pain), <i>Harqat-e-Maq'ad</i> (Pruritus ani), <i>Waram-e-Maq'ad</i> (Proctitis), <i>Waj al-Ama</i> (Intestinal colic), ^{16,20,21} <i>Azm al-Fakhiz</i> (increasing size of female buttocks and thighs) ^{16,22} <i>Maq'ad</i> (Fistula in Ano) ²³
		Uterus	<i>Bawaser -e-Reham</i> , <i>Ihtibas-e-Tams</i> (Amenorrhoea) ^{18,16, 20,21,22}
		Joints	<i>Waj al-Zuhar</i> (Backache) <i>Waj al-Warkain</i> (Pain in hip) ^{20,21}
	<i>Fakhizain</i> (thighs) Ventral aspect	Skin	<i>Quruh-e-Mot'affinah</i> (infected wounds of the shanks) ^{16,22} <i>Busur-wa-Damamel-e-Fakhizwasaqain</i> (boils and carbuncles of thighs and shanks) ¹⁸
		Testis:	<i>Waram-e -Khusyah</i> (Orchitis), ²² <i>Hikkat-ul- safan</i> (Pruritus scroti/Itching of testis) ^{20,21'22}
		Uterus:	<i>Waram-e-Reham</i> (Metritis), ²² <i>UrooqiSailan-ul-Dam</i> (Haemorrhage from uterine blood vessels) ²² <i>Ihtibas-e-Tams</i> (Amenorrhoea) ^{10,13,14,15,16, 20,21}
		Joints:	<i>Waj al-Mafasil</i> (Arthritis) ^{20,21}
	Dorsal aspect	Anus	<i>Hijamah</i> at the dorsal aspect of the thigh is beneficial is same ventral aspect and anal diseases with <i>Bawaser</i> (Hemorrhoids) <i>Shiqaq-e-Maq'ad</i> (Anal fissure). ^{10,13,14,15,16,22}
		Skin	<i>Warm waKhuraaj</i> (Swelling and hot abscesses of thigh) ^{10,13,14,15,16} <i>Qurooh -e-old</i> and unhealed ulcer thighs and shanks ^{11,14,15}
	<i>Rukbah</i> (knee)	Joints	<i>Waram al-Rukbah</i> (Swelling of the knee), <i>Hurqa al-Rukbah</i> (Burning of knee) <i>Siqal al-Rukbah</i> (Heaviness of ofknee), <i>Waja al-Mafasil-Damavi</i> (Sanguine arthritis), <i>Zarban-e-RukbahHar</i> (Throbbing of the knee joints), ^{19,20,21} <i>Khuraaj</i> (Abscessof the leg and shank) <i>Dubaila</i> (chronic wounds of the leg and shank). ^{11,14,15}
18.	<i>Saqain</i> (Shank)		<i>Awjae-muzmiana</i> (chronic pain)
		Head	<i>Saqtah</i> (Apoplexy)

			<i>Sara'</i> (Epilepsy), <i>Malankholia</i> (Melancholia), <i>Dawar</i> (Vertigo). ^{19,20,21}
		Eye	<i>Tareekiy-e -Chashm</i> (Loss of vision) ^{19,20,21}
		Fever & congestion	<i>Tap-e-Damvi</i> (Sanguine fever) <i>Imtila</i> (Congestion) ^{19,20,21}
		Mouth	<i>Fasad-e-Dehan</i> (Halitosis) ^{19,20,21}
		Throat	<i>Khunaaq-e ibtedae</i> (Initial stage of Diphtheria), <i>Waj al-Halaq</i> (Sore throat/ throat pain) ²²
		Kidney	<i>Amraz-e-Gurdah</i> (Disorders of kidneys) ¹²
		Bladder	<i>Zakhm-e-Masana</i> (Wounds of bladder) ¹²
		Uterus	<i>Ihtibas -e-Tams</i> (Amenorrhea) ^{8,12,11,14,}
		Skin	<i>Busur</i> (Boils) <i>Damamel</i> (Carbuncles) <i>Namla</i> (Herpes of shank) ²² <i>Jarbwa</i> (Scabies) <i>Hikkah</i> (Pruritus) <i>Qooba</i> (Ringworm) ^{19,20,21}
		Throat	<i>Khunaaq-e ibtedae</i> (Initial stage of Diphtheria), <i>Waj al-halaq</i> (Sore throat/ throat pain). ²²
		Joints	<i>Irq al-Nasa</i> (sciatica). ^{19,20,21}
		Blood purifier	Blood purifier: Besides <i>HijamahSaqain</i> has also blood purifying effect, 11,14,15It is preferable for the <i>Hijamah</i> at this site, that patient should take <i>Hamam</i> (Turkish bath) or pour warm water on his shanks so as to increase the blood circulation of the <i>Saqain</i> (Shank).sit the chair and suck 40 times.
20.	<i>Ka'bain</i> (Ankles)	Uterus	<i>Ihtibas-e-Tams</i> (Amenorrhea), ^{10,13,14,15,16, 20,21}
		Joints	<i>Irq al-Nasa</i> (Sciatica) ^{10,13,14,15,16,} <i>Niqris</i> (gout), ^{10,13,14,15,16, 20,21} <i>Wasa</i> (Sprain) <i>Wahan</i> (Weakness of feet) <i>Shiqaq-al-Qadam</i> (Cracked feet) <i>Hurqa al-Qadam</i> (Burning of feet) ^{20,21}

Summary: Hijamah is one of the effective therapy practised in ancient period. It is also gaining attention now-a-days because of its efficacy as well due to side effects, high cost and resistance developed due to conventional system of medicine. People now opt for non-medicinal regimens/therapies and drugs based on natural/ herbal sources. Sites an indication of the therapy by ancient scholar widespread alternate mode of management for serious and chronic disease. But it is need of time to evaluate the safety of therapy. Also further it is needed to explore the efficacy of the mode treatment on scientific parameters. So, clinical studies are to be conducted on various parameters which can validate Hijamah not only for the safety and efficacy but also for development of SOPs regarding site, duration and procedure of study according to modern parameters.

REFERENCES

1. Maloof L. Al-Munjid (Urdu; translated by AbulFazal Abdul Hafeez) Lahore: Khzema-e-ilmuadab al-kareem market urdu bazar. YNM. p.140.
2. Sheikh, H.M., Zaman F., Jabeen A. Hijama (cupping therapy): a noble method of treatment in Unani medicine. Int. J. Res. Ayurveda Pharma. Mar-Apr 2015; 6(2):207-215.
3. Al Bedah A., Khalil M., Elolemy A, Elsubai I., Khalil A., Hijama (cupping): a review of the evidence, Focus on Alternative and Complementary Therapies. March 2011; 16(1):12-16
4. Qarshi.M.H., Jami-al-hikmat. New Delhi: Eijaz Publishing House. 2011. p.255-256.
5. Razi Z., Kitab-al- mansoori (Urdu translation), Vol. 11. New Delhi: CCRUM. 1999. p.283-284.
6. Kabiruddin M., Kulliyat-e-nafisi. New Delhi: Idara Kitabu-sh-Shifa; 1054. p. 514-516.
7. Jamal A., Siddiqi M.K. Utility of cupping therapy in unani medicine. Indian J. of Traditional Knowledge. Oct. 2008;7(4):572- 574.
8. Chanpuri K., Moojiz-al-qanoon New Delhi: NCPUL, Ministry of Human Resources Development Govt. of India west block-I, R K Puram . p. 70-171
9. Tarique M., Khan M.S., Shamim M., Rashid B., Mohsin M. Hijama (wet cupping): a historical review, therapeutic indications and contraindications. J. of Biological & Scientific Opinion. 2014; 2(6):373-376.
10. Arzani A., Ikseer al-quloob (Urdu Translation by CCRUM). New Delhi: CCRUM. 2010. p.738-744,
11. Iqbal M.N., Ansari A.A. Al-hijama (cupping): the natural holistic healing art-a review. IJAAYUSH 2013; 2(1):23-30.
12. Zuhrawi AQ., Jarahiyatezahrawi. (Urdu translation by Hakim Nisar Ahmed Alvikakorvi). New Delhi: CCRUM; 2012: 182-187
13. Ibn-e-Sina. Al- qanoon fit tib (Arabic), Vol 3. Beirut Lebano. Dar al Kotoob al-ilmia 1999. p. 299-302.
14. Ibn-e-Sina. Al- qanoon fit tib (Urdu: translated by Ghulam Hasnain Kantoori), Vol 3. Lahore: Sheikh Mohammad Bashir & Sons. YNM. p. 274-277
15. Ibn-e-Sina. Al-qanoon fit tib (English translation), Vol. 1. New Delhi: Jamia Hamdard. 1993. p. 364-367
16. Ibn-e-Sina, Kulliyat al-qanoon (Urdu translation by Allama Kabeeruddin). New Delhi: Ejaz publishing house; 2006:344-350.
17. Taber's cycloped medical dictionary. New Delhi Japee Brothers Medical Publisher (P) Ltd. p.557.
18. Bagdadi I H. Kitab al-mukhtarat fit tib (Urdu translation), Vol. 4. New Delhi: CCRUM. 2005. p. 277-278.
19. Jurjani A. Zakheerakhwarizmshahi. (Urdu: translated by Hakeem Hadi Husain Khan), Vol 6. Lucknow: Matba Munshi Nawal Kishore. 1903. p.220-225,
20. Majusi A.A, Kamil- al- Sanaah (Arabic), Vol 2, New Delhi: CCRUM; 1986; 2010. p.463-466.
21. Majusi A.A, Kamil- al- Sanaah (Urdu; translated by Ghulam Hasnain Kantoori), Vol 2, New Delhi: Idara Kitabu-sh-Shifa; 2010. p. 531-534.
22. Masih-Ibn al Quf. Kitab-al-umdafil-jaraha, Vol. 1. New Delhi: CCRUM; 1986. p. 194-200.
23. Ibn-e-Qayyim, Tibb-e-Nabvi (Urdu translation by Hakeem Aziz al-Rahman Azmi) Lahor: Dar al-kutub assalfiya; 2003. p.74-92.