



UNANI MEDICINES IN THE MANAGEMENT OF SAILAN AL- RAHIM (LEUCORRHOEA) – A SYSTEMATIC REVIEW

Unani Medicine

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ABSTRACT

Leucorrhoea means excessive vaginal discharge from female genital tract, which occurs in 1-14% of women of reproductive age group and is responsible for 5-10 million OPD visits per year. Its prevalence in India is estimated to be about 30%. In classical Unani text, leucorrhoea (*sailan al-rahim*) is caused by *kasrate awrame rahim* or accumulation of *fuzlaat*, secondary to weakness of *quwwate ghaziya* of *rahim*. These *fuzlaat* may get accumulated due to the dominance of any of the four humors either blood, phlegm, yellow bile or black bile. Diagnosis is based on clinical signs and symptoms of dominant humor. The reproductive tract infections form one of the major burdens of diseases in developing countries caused mainly by *Candida albicans* and *Trichomonas vaginalis*. However, malnutrition and low socioeconomic status plays a significant role in its occurrence. It may predispose to PID, infertility, ectopic pregnancy, preterm labour, PROM, cervical carcinoma if left untreated. In conventional medicine, the available treatment includes the use of antibiotics which though effective, but have their own side effects. In Unani medicine, principles of treatment include removal of *khilte ghalib*, followed by *tanqiyae rahim*; use of *muhallile waram* and *dafae ta'ffun* adwia, apart from perineal hygiene which plays an important role. Unani drugs such as *satavar*, *sonth*, *lodh pathani*, *sibr*, *roghane gul*, *murr*, *mazu*, *tabasheer*, *kundur*, *gulnaar*, *qaranfal*, *tukhme khurfa*, *mocharas*, *gule dhawa*, *sandal safaid*, etc are useful in *sailan al-rahim*. Scientific studies suggest that they possess anti bacterial, anti inflammatory, laxative, anti oxidant and analgesic activities. The aim of this systematic review is to focus the importance of Unani drugs and their use in *sailan al-rahim* as a safe and effective alternative to conventional medicine.

KEYWORDS

Unani Medicine, *Sailan al-rahim*, Leucorrhoea, Anti bacterial, Anti-inflammatory, Systematic review.

Introduction:

Leucorrhoea is an excessive vaginal discharge from the female genital tract,¹ which includes all discharges purulent, yellow or watery but not blood stained,^{2,3,4} occurs in about 1-14% of all women of reproductive age group and is responsible for 5-10 million OPD visits per year.⁵ Its prevalence is estimated to be about 30%⁴ in India, 6% in urban and 7% in rural areas.⁶ Leucorrhoea means 'running of white substance' and the term should be restricted to mean an excessive amount of normal vaginal discharge, consists mainly of cervical component, dries to leave a brownish yellow stain on clothing.⁷ Leucorrhoea is a symptom, not a disease, and is an expression of some underlying disorder, either functional or organic.⁸ It may be physiological or pathological. Physiological discharge is due to increased level of estrogen, occurs during pregnancy, around ovulation, premenstrual congestion and needs no treatment.⁹ Pathological discharge is mainly due to three causes: infective (non sexually transmitted) like bacterial vaginosis, candidiasis; non infective (sexually transmitted) like *Chlamydia trachomatis*, *Neisseria gonorrhoea*, *Trichomonas*, Herpes simplex virus; and certain other non infective causes like foreign bodies, cervical polyp and ectopy, genital tract malignancy, fistulae, allergic reactions etc.¹⁰ Thus Ministry of Health and Family Welfare, Government of India has developed guidelines for programmed managers and service providers for syndromic management of reproductive tract infections and sexually transmitted infections as an accessible, affordable, effective, amenable and reliable way of treatment.⁵

Unani concept:

In classical Unani literature, *sailan al-rahim* is mentioned in various texts like *Kitab Al Hawi*, *Al Qanoon Fil Tib*, *Kamilus Sanaa*, *Akseere Azam*, *Firdausul Hikmat*, etc which include any discharge other than blood coming out from the uterus; thus it covers almost all types of discharges caused by infection of female genital tract.¹¹

Etiopathogenesis:

Ibn Sina states that *kasrate aurame rahim* (uterine inflammations) and presence of morbid material within the uterine vessels causes *sailan al-Rahim*. *Majoosi*, *Ibn hubal*, *Azam Khan* states that *rahim* contains excessive *rutubat* and any infection in these *rutubat* may lead to *zoafe quwwate hazema* of *rehm* resulting in *sailan al-rahim*.¹² *Sailan al-rahim* is due to the accumulation of excessive humors either *dam* (blood), *balgham* (phlegm), *saфра* (yellow bile) or *sawda* (black bile).¹³ *Samarqandi* quoted that "these excessive secretions are the morbid

material of whole body and the body tries to expel it out from the uterus." Other causes of leucorrhoea includes amenorrhoea, gonorrhoea, syphilis, anemia, general weakness, typhoid etc.¹⁴ Vaginal discharges may adversely affect the women's health in a similar manner as spermorrhoea affects the health of her counter part.^{14,15} Depending on the dominance of khilt (humor), *sailan al-rahim* is of four types: *Sailan al-rahim damwi*, *Sailan al-rahim balghami*, *Sailan al-rahim sawdawi* and *Sailan al-rahim sawdawi*.

Clinical features:

Color of vaginal discharge depends on the features of dominant humor;

- Blood (*dam*): blood tinged discharge with burning sensation & reddish colored urine.
- Yellow bile (*khilte safra*): foul smell & yellow colored discharge.
- Phlegm (*khilte balgham*): whitish discharge with other symptoms of *ghalbae balgham*.
- Black bile (*khilte sawda*): thick & black colored discharge with dryness & weakness.
- *Zoafe quwwate ghazia rahim*: recurrent yellow colored discharge & general weakness.

Other features: Heaviness and pain in lower abdomen, backache, painful menstruation, frequent urination, decreased appetite, indigestion, constipation, headache and general weakness.^{13,14,15,16}

Principles of treatment:

Find the cause and treat accordingly.

- Oral use of *munzij mushil* therapy followed by local use of *habis wa qabiz farzajat*, if the cause is *ghalbae khilt*.
- Oral use of *habis qabiz advia* such as *behi*, *saib*, *sharbate lemooni*, *sandal* etc, if the cause is *zoafe quwwate ghazia rahim*.
- Use *mufarrehate latif* to strengthen *quwwate ghazia rahim*. (*Razi*)
- Use *muhallile auram advia* orally & locally, if the cause is *warame rahim*.
- Use *muqawwiyat* if the cause is general weakness.
- Use *muqawwi aghziya*, iron preparation like *kushta khabsul hadeed*, *kushta faulad*, *habbe marwareed* etc, if the cause is anemia.
- If the cause is local vaginal infection, treatment is directed to evacuate the morbid humor.
- General advice:
- Avoid constipation and undue stress,
- Maintain general health and perineal hygiene.^{13,14,15,16}

Recommended drugs in Unani system of medicine for leucorrhoea:

Single drugs (oral use)	Single drugs (local use)	Compound formulations(oral use)
<ul style="list-style-type: none"> • <i>Shibe yamani (Alum)</i> • <i>Ajwain (Ptychotis ajowan)</i> • <i>Gulnar (Punica granatum)</i> • <i>Kakra seenghi (Pistachia integrima)</i> • <i>Taalmakhana (Astrachanthas longifolia)</i> • <i>Beejband (Sida cardifolia)</i> • <i>Gule supari (Acacia catechu)</i> • <i>Post bairoone pista (Pistachia vera)</i> • <i>Gule dhawa (Woodfordia fruticosa)</i> • <i>Saalab misri (Orchis latifolia)</i> • <i>Maghz tukhme tamarhindi (Tamarindus indica)</i> • <i>Tukhme bakain (Malia azaderach)</i> • <i>Sandal safaid (Santalum album)</i> • <i>Afsanteen (Artemisia absinthium)</i> • <i>Gule surkh (Rosa Damascena)</i> 	<ul style="list-style-type: none"> • <i>Elwa/ Sibr (Aloe barbedensis)</i> • <i>Murdar sang (lead oxide)</i> • <i>Shibe yamani (Alum)</i> • <i>Mocharas (Salmalia malabarica)</i> • <i>Safeda (Lead carbonate)</i> • <i>Gile makhtoom (Yellow chalk)</i> • <i>Gile Armani</i> • <i>Gulnar (Punica granatum)</i> • <i>Kundur (Boswellia serrata)</i> • <i>Tukhme katan (Linum usitatissimum)</i> • <i>Tukhme khatmi (Althaea officinalis)</i> • <i>Brinjasif (Artemisia vulgaris)</i> • <i>Roghane gul (Rose oil)</i> • <i>Muqil (Commiphora mukul)</i> • <i>Habbul aas (Myrtus communis)</i> • <i>Afyun (Papaver somniferum)</i> • <i>Mom safaid (Beeswax)</i> 	<ul style="list-style-type: none"> • <i>Safoofwa qurs sailan</i> • <i>Majoon mocharas</i> • <i>Majoon supari paak</i> • <i>Majoon muqawwiae rahim</i> • <i>Majoon khabsul hadeed</i> • <i>Halwa supari paak</i> • <i>Majoon suhaagsonth 13, 14, 15, 16</i>

Methodology:

A systematic literature search was performed to identify studies on leucorrhoea including observational and experimental studies (both human & animal trial). Women in reproductive age group presenting with complaints of vaginal discharge were included in this systemic review.

Outcome measures:

Subjective parameters are vaginal discharge, low backache, pruritis

vulvae, lower abdominal pain in decreasing order of frequency and objective parameter is gynecological examination.

Discussion:

Most of the studies have included women in reproductive age group with increased prevalence in 20-30yrs of age.^{3,17,18} Most common complaint was vaginal discharge and low backache.^{3,6,19,20} Most common cause of leucorrhoea was bacterial vaginosis followed by trichomonas and candidiasis.^{3,6,18,19,21}

Evidence based medicines for leucorrhoea:

S.No	Drug	Botanical name	Chemical constituents	Pharmacological actions	References
1.	<i>Tamarhindi</i>	<i>Tamarindus indicus</i>	Tannins, flavonoids, anthroquinone, saponin, vitamins (beta carotene, K), minerals (Mn, Ca, P, Na, Zn, Cd, Cu, etc)	anti bacterial, anti fungal, hypoglycemic, cytotoxic, anti inflammatory, anti oxidant	Africa focus,2010 ²² IJMS,2013 ²³ IFRJ, 2014 ²⁴ JBSO, 2013 ²⁵
2.	<i>Lodh pathani</i>	<i>Symplocos racemosa</i>	Butanolic acid, ethyl acetate, cyclophosphamide, flavonoids, phenolic compds, alkaloids	Strong cytotoxic against human leukemia cell line, human cervical cancer cell line; anti inflammatory, anti oxidant, anti bacterial, anti androgenic, analgesic	Sciencereuters,2014 ²⁶ RJPBCS, 2010 ²⁷ IRJP,2013 ²⁸ Elixirpharmacy2013 ²⁹ JCLM,2013 ³⁰ Ejbio,2009 ³¹ Traditional herbal remedies for primary healthcare,WHO,201632
3.	<i>Bakain</i>	<i>Meliaazaderach</i>	Phenol, Limonoids, resin, tannin, glycosides, benzoic acid	Anti leishmanial activity, anti oxidant, cytotoxic, anti inflammatoty, immunomodulator, anti hyperglycemic, anti viral	PJPS,1991 ³³ AJPCT,2014 ³⁴
4.	<i>Dare filfil</i>	<i>Piperlongum</i>	Alkaloids (piperine, piper longimine), vol oil, starch, proteins, saponin, amygdalin, aromatic oil, resin, lignan	Anti inflammatory, anti bacterial, anti oxidant, anti allergic, anti asthmatic, hepatoprotective,hypoglycemic, anti asthmatic	NPR,2004 ³⁵ IJPS,2014 ³⁶ IJPPS,2014 ³⁷ IAMJ,2015 ³⁸ JPSI,2012 ³⁹ IJRAP,2011 ⁴⁰
5.	<i>Sibr (gheekwaar)</i>	<i>Aloe barbedensis</i>	Aloins:natoloins,barbaloins Antiseptic agents, Aloe emodin, Aloe lectin	Anti tumour, anti cholesterol, immunomodulator, antiinflammatory, detoxifier	PP, 2013 ⁴¹ JPP, 2012 ⁴²
6.	<i>Sandal safed</i>	<i>Santalum album</i>	Vol oil (90%), tannins, terpenes, resins, waxes	Antibacterial, anti inflammatory, anti oxidant, analgesic, anti cancerous, antihyperlipidemic,anti hyperglycemic	IJPRIF,2010 ⁴³ ASL, 2005 ⁴⁴ JMES,2016 ⁴⁵
7.	<i>Fowa (majith)</i>	<i>Rubia cordifolia</i>	Anthroquinones, tannins, naphthoquinone, terpenes, carboxylic acids, amino acids, proteins, flavonoids,	Anti cancerous, anti inflammatory, anti bacterial, antioxidant, immunomodulatory, anti diabetic	JPSR,2010 ⁴⁶ IJRAP,2010 ⁴⁷ IJPSR,2014 ⁴⁸
8.	<i>Gule supari</i>	<i>Areca catechu</i>	Alkaloids,tannin, lipids polyphenols, sugar	Anti microbial against Candida albicans, dental caries(S.mutans, S.salivaris, S.mitis, L.acidophilus), anti inflammatory, anti oxidant	AJPCR,2014 ⁴⁹ IJPSR,2013 ⁵⁰ IJPPS,2014 ⁵¹ IJRAP,2012 ⁵²
9.	<i>Zanjabeel</i>	<i>Zingiber officinalis</i>	Vol oil (zingiberol, zingiberine)	Potent antioxidant, androgenic, anti ulcerogenic, anti oxidant, antiinflammatory, hyperlipidemic	JCPR,2016 ⁵³ NPR,2003 ⁵⁴ AJBR,2008 ⁵⁵
10.	<i>Guledhawa</i>	<i>Woodfordia fruticosa</i>	Polyphenols, tannin, carotene, aspartic acid, protein, citric acid, Al, Ca, Mg, resins	Cytotoxic on HEP-2 and SK-N-MC cancer cells, anti inflammatory, antihyperglycemic, anti fungal	IJPSDR,2015 ⁵⁶ IJBB,2013 ⁵⁷ BBB,2011 ⁵⁸ AJPSR,2011 ⁵⁹
11.	<i>Aqaqia</i>	<i>Acacia arabica</i>	Tannins, gallic acid, galactone, digallic acid	Haemostatic, anti ulcer, anti diabetic, anti bacterial, antiviral	IJEB,2013 ⁶⁰ SMJ,2013 ⁶¹ IJP,2007 ⁶²



Figure 1. *Symplocos racemosa*



Figure 2. *Tamarindus indicus*



Figure 3. *Melia azedarach*



Figure 4. *Piper longum*



Figure 5. *Aloe vera*

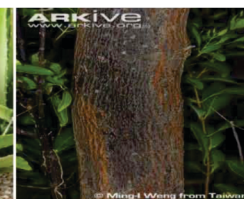


Figure 6. *Santalum album*



Figure 7. *Areca catechu*



Figure 8. *Rubia cordifolia*



Figure 9. *Zingiber officinalis*



Figure 10. *Woodfordia fruticosa*



Figure 11. *Acacia Arabica*

List of retrieved clinical trials on vaginal discharge:

S. No	Studies retrieved on vaginal discharge	Herbs	Type of study	No. of patients included	Study duration	Assessment tool	Main result of studies	Reference s
1.	A clinical study of <i>Marham Dakhilion</i> on chronic cervicitis and cervical erosion (T.Latafat 1992)	<i>Marham Dakhilyoon</i> (Ing: <i>Roghane gul, Mom, Murdar sang, Tukhme Khatmi, Tukhme Kanocha, Tukhme Katan, Tukhme Isapghol, Tukhme Hulba</i>)	Clinical study	100	1 Yr	Clinical assessment	<i>Marham Dakhilyoon</i> was effective in 80% cases	ASL 199263
2.	Clinical efficacy of a Unani herbal formulation of <i>Hemidesmus indicus</i> and ointment of <i>Astragalus hamosus</i> in endocervicitis (ShahidaHabib2011)	Orally : <i>Majoon Ushba</i> (<i>H. indicus</i>) Locally: <i>Marham Nakhuna</i> (<i>Astragalus hamosus</i>)	Randomised single blind standard controlled trial	45	1yr	Primary and secondary outcome measures	Test drugs were safe and effective in the management of endocervicitis	IJCRR 201164
3.	Efficacy of <i>Sphaeranthus indicus</i> and cream of <i>Lawsonia inermis</i> in cervical erosion with cervicitis (Shabana Hashmi 2011)	Orally : <i>Safoofe Mundi</i> (<i>S. indicus</i>) Locally: <i>cream of Henna</i> (leaves of <i>L. inermis</i>)	Randomized single blind placebo controlled study	45	1yr	Clinical assessment	Test drug formulation were effective in healing and relieving symptoms of disease.	EJIM 201165
4.	Efficacy of a combination of Unani drugs in patients of <i>Trichomonas vaginitis</i> (Wasim Ahmad 2011)	Pills : <i>Afsanteen</i> (<i>Artimisia absinthium</i>), <i>Kabab Chini</i> (<i>Piper cubebs</i>), <i>behroza</i> (<i>Pinuslongifolia</i>) Capsule: <i>Mazu</i> (<i>Quercus infectora</i>) Tampon: <i>Barge neem</i> (<i>Azadirachta indica</i>), <i>haldi</i> (<i>Curcuma longa</i>), <i>phitkiri</i> (<i>Alum</i>)	Randomized single blind Controlled trial	60	1yr	Clinical assessment, Wet mount examination of vaginal discharge	Test drugs was safe and effective in treatment of <i>Trichomonas vaginitis</i>	IJTK 201166
5.	Efficacy of bark of <i>Acacia arabica</i> in the management of Bacterial vaginosis (Rumaiza Jahufar 2014)	<i>Chale babool</i> (decoction)	Prospective single blind randomized standard controlled trial	45	1yr	Amsel's criteria	Test was as effective as control drug in the management of bacterial vaginosis.	IJCRR 201467
6.	Analgesic, anti inflammatory, and anti microbial activities of <i>Irsa</i> (<i>Iris ensata</i>): A clinical study on the patients of <i>Iltehabe Unqur Rehem</i> (Cervicitis) (Salma Mirza 2015)	<i>Irsa</i> (in the form of <i>majoon</i> orally) Extract locally per vaginum	Clinical study	30	1 yr	Cervical swab culture	Test drug was effective in relieving sign/symptoms of cervicitis	IJPPR 201568

7.	A clinical study of pelvic inflammatory disease and its management with Unani drugs (Amtul Aziz Tahseen (2015)	Group A, B: Oral : decoction made from <i>tukhme Khatmi, Khubazi, Kasni; barge Aftimun, gule tesu, gule nilofer, gule surkh, Mulethi and shibe yamani</i> Group A: <i>orally safoof of tukhme kasni, charaita, tukhme khatmi, maghze gajga, kalonji</i> Group B: <i>orally shahitra, badranjboya, mako khushk, aftimun wilayati</i> <i>Douche: kasni, khatmi, neem, katan, kamila, kishneez</i> <i>Zimad: gheekwar, maghze gajga, dare hald, khatmi</i> <i>Pessary: charaita, gule tesu, luabe isapghol, roghane neem,</i>	Randomized single blind trial	60	3 months	Clinical assessment, swab culture, pap smear, sonographic appearance	Overall improvement in the PID symptoms, with normal pap smear and swab culture with no side effects.	Jmscr 201569
8.	Efficacy of Unani formulation in chronic endocervicitis (Q.N.Quhddia 2015)	Group A: Orally : powder of <i>mako khushk, chobchini, gule surkh</i> <i>Douche : joshanda of barge neem , gule tesu</i> <i>Humool: luabe khatmi, safoofe sad barg, roghane neem</i> Group B: <i>Orally : powder of ushba and kasni.</i> <i>Humool : luabe hulba, raswat, roghane gul</i>	A parallel comparative randomized trial	50	2 yrs	Subjective and objective parameters	Group A and B were comparable in ameliorating signs and symptoms of endocervicitis because of anti inflammatory, analgesic and anti microbial effects.	IJPPS 201570
9.	Efficacy of <i>Arqe brinjasif</i> in Pelvic Inflammatory Disease (Atiya Sayed 2016)	<i>Arqe brinjasif</i> (Ing: <i>Badiyan, Brinjasif, Tukhme kasni, Barge Jhao, Mako Khushk, Afsanteen</i>)	Randomised controlled trial	40	1 yr 3 months	VAS score Vaginal discharge	<i>Arqe brinjasif</i> was effective in the management of mild PID	IJMR 201671
10.	Efficacy of Unani formulation in the management of chronic cervicitis (Lateef Unnisa 2016)	Orally: <i>Safoofe Revand Chini Safoofe Asgand Nagori</i> Locally: <i>Luabe Tukhme Katan and Roghan Bedanjeer</i>	A prospective observational study	30	2 yrs	Pap smear Cervical swab culture	Drugs are effective in the management of chronic cervicitis	IJHM 201672
11.	Effect of Unani formulation in cervicitis (<i>Warm Unqur rehmi</i>) (Shabnam Zahid 2016)	Orally : <i>Safoofe Sailan</i> (Ing: <i>Gule Dhawa, Fofal, Mocharas, Gonde Molsari</i>) Locally : <i>Isapghol, Alsi</i>	Single blind randomized placebo controlled trial	60	1 yr	Swab culture	Unani formulations were effective in improving symptoms of cervicitis	AIM 201673
12.	Effect of <i>Amla</i> (<i>Emblica officinalis</i>) and <i>Shibe yamani</i> (Potash alum) in the management of Candida vaginitis (Masuma Zaki 2016)	Orally : <i>Amla (with honey)</i> Locally : <i>Shibe yamani</i>	Randomized standard controlled trial	45	1yr	Wet mount test	Test drugs provide significant improvement in vulvovaginal pruritis, wet mount test and vaginal discharge without apparent side effects. It can serve as an alternative treatment for Candida vaginitis	IJRCOG 201674
13.	<i>Effect of Gule Dhawa and Mocharas in Sailan al- Rahim</i> (Mobashshera Khan 2017)	<i>Gule Dhawa Mocharas</i>	Single blind randomised placebo controlled clinical trial	60	1.5 yr	Amsel's criteria	<i>Gule Dhawa and Mocharas</i> were effective in the management of <i>Sailan al rahim</i>	IJASR 201712
14.	<i>Therapeutic evaluation of anisoon (Pimpinella anisum seeds) in Sailan-ur-rahem caused by Gardnerella vaginalis.</i> (Khadija Zahid Ali 2017)	<i>Anisoon (Pimpinella anisum)</i>	Randomized clinical trial	44	2 yrs	Vaginal pH determination, amine (Whiff) test, saline wet mount examination of vaginal discharge	Test drug was proved to be safe and effective in treatment of bacterial vaginosis.	IJAPMBS 75

Conclusion:

Leucorrhoea (*sailan al rahim*) is the most common gynecological infection occurring in women of reproductive age group with 30% prevalence in India. Classical Unani text mentioned that *sailan al rahim* is caused by various factors. Treatment in conventional medicine includes oral use of metronidazole or local use of clindamycin cream, which though effective but has known side effects like nausea and vomiting, flatulence, skin rashes, dizziness, renal and hepatic complications etc. Further, they may induce bacterial resistance with repeated use and relapse rates are high after the completion of treatment. Hence, there is a need for alternate therapy which is to be safe, effective, easily available and free from side effects. Many single drugs and compound formulations are available in Unani system of medicine for the management of *sailan al rahim*, which can be used as an alternate therapy. The aim of this systematic review is mainly focus on different studies conducted on leucorrhoea with Unani drugs which are safe and effective compared to conventional medicine. Hence, these Unani drugs should be implemented in day to day clinical practice due to their beneficial effects since ancient times as mentioned in the literature.

Future recommendations:

Multicenter studies on large sample size with long follow up for better treatment outcome.

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