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## A conceptual literary exploration of *Sayalan al-rahim* (abnormal vaginal discharge) in Unani medicine

Saeedi R.<sup>1</sup>, Sultana A.<sup>2\*</sup>, Khan M.A.<sup>3</sup>, Farzana M.U.Z.N.<sup>4</sup>

### Abstract

Unani literature is enriched with the concept of *Sayalan al-rahim* (abnormal vaginal discharge). It is the excessive abnormal vaginal discharge from the female genital tract and the commonest reason for which women seek medical attention. It adversely impacts reproductive health and contributes to significant morbidity. Therefore, a literary exploration in classical Unani literature for *Sayalan al-rahim* was searched to implement in the current era. Further, various search engines like PubMed, Medline, Google Scholar, Ovid, Science Direct, and Scopus were browsed for contemporary outlook of abnormal vaginal discharge with evidence-based medicine. According to various eminent Unani philosophers, *Sayalan al-rahim* is the disease that adversely affects the health of the women and should not be neglected; it can affect the fertility of a woman. The causes, clinical features, diagnosis, differential diagnosis and management of abnormal vaginal have been well-documented in the classical texts. Contemporary medicine discusses abnormal vaginal discharge as a symptom of female reproductive diseases. Few studies have been published related to *Sayalan al-rahim* caused due to various female reproductive tract infections. This literary research validates the Unani classical texts that are enriched with in-depth knowledge on abnormal vaginal discharge. Few evidence-based studies have proven that traditional Unani medicines are efficacious in abnormal vaginal discharge.

**Keywords:** Abnormal vaginal discharge, Evidence-based studies, *Sayalan al-rahim*, Unani Medicine

### Introduction

Vaginal discharge is the commonest complaint in the reproductive age group<sup>1-5</sup> that can be normal physiologic variance or a pathological manifestation.<sup>1, 3, 5</sup> Further, abnormal vaginal discharge is the second most common problem after abnormal uterine bleeding or menstrual disorder.<sup>6</sup> Studies have shown that 11% to 38.4% Indian women avail care for vaginal discharge in the primary and secondary health care setting.<sup>5</sup>

“Global Burden of Disease Study estimates that 27.4% of Disability-Adjusted Life Year (DALY) lost in Indian women aged 15–44 years was attributed to reproductive ill-health”.<sup>7</sup> In a year, approximately, 1 in 10 women presents with vaginal discharge.<sup>6</sup> A pathological vaginal discharge may be of vaginal or cervical origin. Its prevalence is 11% to 38.4% in India.<sup>5</sup> A study found that the peak age group for vaginal discharge was reproductive age.<sup>8</sup> Another study showed that about 40% of women in India are estimated to have Reproductive tract infections (RTI)/Sexually transmitted infections (STI) at any given point of time, but only 1% completes the full treatment of both partners.<sup>9</sup>

Unani literature is enriched with the concept of *Sayalan al-rahim* (vaginal discharge). Unani scholars mentioned various etiological factors of *Sayalan al-rahim* such.<sup>10</sup> Variety of organism as per conventional medicines causes bacterial vaginosis, vulvovaginal candidiasis, *trichomonas vaginalis*, cervicitis, pelvic inflammatory diseases, and sexually transmitted diseases.<sup>11, 12</sup> **Rationale of the study:** Clinically, the first choice to treat reproductive tract infections (RTIs) according to different pathogens is antibiotics.

<sup>1</sup>Department of Amraze Niswan wa Ilmul Qabalat (Gynecology and Obstetrics), Jamia Tibbiya Deoband, Saharanpur, U.P., India.

<sup>2</sup>Department of Amraze Niswan wa Ilmul Qabalat (Gynecology and Obstetrics), National Institute of Unani Medicine, Bengaluru, Karnataka, India.

<sup>3</sup>Department of Ilmul Jarahat (surgery), Jamia Tibbiya Deoband, Saharanpur, U.P., India.

<sup>4</sup>Unit of Amraze Niswan wa Ilmul Qabalat (Gynecology and Obstetrics), Institute of Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka

\*Correspondence: Sultana A., Associate Professor, Department of Amraze Niswan wa Ilmul Qabalat (Gynecology and Obstetrics), National Institute of Unani Medicine, Bengaluru, Karnataka, India.  
Email: drarshiya@yahoo.com, drasnum@gmail.com

No single wide-spectrum formulation is available for intravaginal use to cure or prevent infections caused by commonly encountered vaginal pathogens. Most of the drugs used in RTIs (metronidazole and clotrimazole pessary and antibiotics like doxycycline and ciprofloxacin) cause side effects. Further, antimicrobial resistance is increasing, rendering some regimen ineffective in several RTIs. New agents are expensive though they are capable of treating infections with resistant strains. Thus, there is a need for new formulations with fewer side effects and action on a wide spectrum of microorganisms, including multidrug-resistant strains.<sup>4, 12</sup> In Unani system, well known herbs are used from centuries to treat *Sayalan al-rahim* and various other gynecological diseases have *Muhallil al-waram* (anti-inflammatory), *Qabiz* (astringent), and *Dafi 'i-ufunat* (antiseptic) properties.<sup>13, 14</sup> Therefore, there is a need for alternative medicine. Hence, the aim and objective of this review was to appraise the Unani concept and treatment of *Sayalan al-rahim* to implement in the current era. Further, databases were explored to collect evidence regarding the usefulness of Unani medicine in *Sayalan al-rahim* on scientific parameter and to validate the claim of Unani scholars.

**Material and Methods:** The inclusion criteria were all classical texts available in the National Institute of Unani Medicine and above terms and full length free accessible articles in English and exclusion were abstracts. A total of 180 text books and articles were the reviewed. Thirty seven references including classical literature and articles with full length that were available on browsing with above terms have been added. This exploration was carried out between 01 October, 2017 and 08 November, 2018. For the search of the Unani literature, the landmark and authentic books such as *Paradise of Wisdom (Firdaws al-Hikmat fi'l-Tibb)*, *Kāmil al-Sanā 'a al-Tibbiyya*, *Canon of medicine (Al-Qānun Fi'l Tibb)*, *Dhakhira Khawārizm Shāhi*, *Continens Liber (Kitāb al-Hāwi fi'l Tibb)*, *Mujaz al-Qānun*, *Kitāb al-Mansūrī*, *Kitāb al-Kulliyāt*, *Kitāb al-'Umda fi'l Jarahat*, *Rumuz-i-A'zam*, *Iksir-i-A'zam*, *Tibb-i-Akbar*, *Ghina Muna*, etc. were referred. were referred. These classical texts were referred for causes, symptoms, types, differential diagnosis complications and management of *Sayalan al-rahim* in the perspective of Unani system of medicine. Further, browsing of PubMed, Google Scholar, Research Gate, AYUSH Portal, Springer, Science Direct, Scopus and other websites was carried by *Sultana et. al. Sayalan al-rahim* in traditional Unani medicine.

imputing keywords such as “abnormal vaginal discharge”, “*Sayalan al-rahim*”, “history and leucorrhoea”, “leucorrhoea”, “complementary and alternative treatment for *Ssayalan al-rahim*”, “herbal remedies useful in *Sayalan al-rahim*” and “evidence based medicine, herbs and *Sayalan al-rahim*”.

## Results and discussion

### Etymology

The word leucorrhoea comes from Greek (leukos means white) plus (rhoia means flow).<sup>15</sup>

### Historical and Unani concept

The concept of *Sayalan al-rahim* has been mentioned from ancient times. The ancient Egyptians were well aware of the genital infection and the Kahun Papyrus (c.1850 BC) mentioned itching of the vulva, medication for the putrefaction of the womb, and the roast meat smell of vulvar inflammation. The Ebers papyrus (c.1550) mentioned about watery discharge and the use of pessaries for its treatment. Prescriptions for leucorrhoea in virgins were noted, and dried liver of swallow was a specific remedy. As per Buqrat (460-377 BC) flowing away of the seeds of women is called *Sayalan al-rahim*. According to Arastu (384-322), to differentiate between *Sozak* and *Sayalan al-rahim* is difficult in women. Jalinus (Galen 129-200 AD) was an opinion that *Sayalan al-rahim* is one of the symptoms of *sozak* (O' Dowd and Philipp, 2000).<sup>16</sup> Majoosi (930-994 AD) stated that *Sayalan al-rahim* is a flow of discharge from the uterus, which is either produced in the uterus due to weakness of *Quwatjadhbarahim* or some waste materials are directed from the body towards the uterus and expelled out.<sup>17</sup> Razi (850-923 AD) described it as the excessive body fluid which is evacuated from the uterus.<sup>18</sup> Ibn Sina (980-1037 AD) mentioned that *Sayalan al-rahimas* an infected discharge pouring out from the uterus and sometimes there is the excessive flow of normal discharge from the uterus known as *Sayalan al-mani*. He also stated that when there is sexual arousal, then some discharge is normal, but if the discharge is seen without sexual arousal, then the cause of the discharge is the weakness of *Quwwat hadima rahim*.<sup>19</sup> According to Jurjani (12<sup>th</sup> century), excessive flow of uninfected discharge from the uterus is *Sayalan al-mani* and flow of infected discharge is described as *Sayalan al-rahim*.<sup>20</sup> Ibn Baghdadi (1163-1231AD) described that discharge in *sayalan al-rahim* is an excretory waste material of the uterus or the body excreted from uterus.<sup>21</sup> Azam Khan (1813-1902 AD) had a similar

opinion about *Sayalan al-rahim* as Razi.<sup>13</sup> According to Ajmal Khan (1868-1927 AD), *Sayalan al-rahim* is the disease which adversely affects the health of the women and should not be neglected as it can affect the vital organs like brain, heart, liver, etc. along with the fertility of a woman.<sup>22</sup> Ghulam Jeelani also mentioned that in this disease, the women have creamish colour discharge from the genital tract.<sup>23</sup> Hasan Qarshi stated that *Sayalan al-rahim* is the discharge secreted from the mucous membrane of the uterus and vagina. He also mentioned that vaginal cells are also present in the discharge.<sup>10</sup>

### Definition

In Unani classical texts, *Sayalan al-rahim* is the abnormal vaginal discharge from the female genital tract.<sup>13, 19</sup> Azam Khan has quoted that it may be a normal physiologic occurrence or a pathological manifestation. Physiological discharge is called as *Sayalan al-mani*, which is fluids from all worn out and dead cells in the vaginal tract along with other toxic materials that are eliminated continuously from the vagina. The pathological vaginal discharge may be whitish, yellowish, reddish and blackish in color.<sup>13</sup>

### Synonym

*Safaidpani ka aana, Safaidrutubataana.*<sup>10, 23</sup>

### Classification

Majoosi, Ibn Sina, Baghdadi, Arzani, Azam Khan, and Ajmal Khan classified *Sayalan al-rahim* according to the *Ghalaba-i-akhlat* as *Sayalan al-rahimdamwi*, *Sayalan al-rahimbalghami*, *Sayalan al-rahimsafrawi*, *Sayalan al-rahimsawdavi*.<sup>13, 19, 22, 24</sup>

*Sayalan al-rahim* is classified according to age as *Sayalan al-rahim* in childhood, adolescents, parous women, nulliparous or newly married women, and in menopausal women. He also mentioned a certain type of *Sayalan al-rahim* known as *Sayalan al-rahimsartani*, which is caused by cancer.<sup>23</sup>

Classification of *Sayalan al-rahim* as per the location

- *Sayalan farij*: Excretion of discharge from the vestibule of the vagina.
- *Sayalan mahbili*: Excretion of discharge from the vagina.
- *Sayala nrahimi*: Excretion of discharge from the uterus.
- *Sayalan unuqi*: Discharge from the cervix.
- *Sayalan mabyadi*: Secretion of discharge from the ovaries.<sup>10, 23</sup>

### Asbab (Etiopathogenesis)

Tabri (2010) states that three types of diseases occur in the uterus i.e., due to *Su' i-mizaj* (distemperament), *su' i-tarkeeb* and *Tafarruq-i-itsaal*.<sup>25</sup> Sina (1981) mentions that the diseases of *rahim* are related to *Su' i-mizaj*, *Amraz – i - tarkeeb* and *amraz – i - mushtarqa*.<sup>19</sup> According to Unani scholars, every person in his state of health has a specific *Akhlat* (humoral constitution) and *mizaj* (temperament). According to Buqrat body consisted of four fluids or humors i.e., *Dam* (blood), *Balgham* (phlegm), *Safra* (yellow bile), *Sawda* (black bile).<sup>26</sup> *Mizaj* of the organ is due to the predominant *Akhlat* in the organ. Any qualitative or quantitative variation in the *Akhlat* leads to disease. According to eminent Unani scholars, there are three major *Quwa* (faculties) that regulate human body i.e., *Quwa haywaniyya*, *quwa nafsaniyya* and *Quwa tabiiyya*. These *Quwa* are specific for a particular organ on which the specific functions of that organ depend, *Quwatabiiyya* is specific for *Adatanasuliyya*. This *Quwa* is concerned with *Taghziya*, *Namu*, and *Tawleed*.<sup>24, 27</sup> Disturbance of the *Quwatabiiyya* of uterus may cause *Sayalan al-rahim*.<sup>27</sup>

Ibn Rushd (1126-1198 AD) and Ibn Nafees (1210-1288 AD) broadly classified *Quwa tabiiyya* into two *Quwa* namely, *Quwa shakhsiyya* and *Quwa tanasuliyya*. He further classified *Quwa shakhsiyya* into *Quwwat ghadhiya* and *Quwwat namiya*. Further, *Quwwat ghadhiya* is sub served by four other *Quwa* i.e., *Quwwat jadhiba* (absorptive power), *Quwwat hadima* (digestive power), *Quwwat masika* (assimilative power) and *Quwwat dafia* (expulsive power). With the help of these four faculties, uterus serves a very important function of elimination of waste products of the body.<sup>27</sup> In case of *Sayalan al-rahim*, *su' i-mizaj* leads to the weakening of *Quwwat ghadhiya* that in turns weakens *Quwwat hadima* and *quwwatmasikaal-rahim*.<sup>13, 19</sup> Tabri (2010) opined that weakness of the *Quwwat masika rahim* leads to *Sayalan al-rahim*.<sup>24</sup> According to Majoosi (2010) and Ibn Sina (1981) the cause of *Sayalan al-rahim* is predominance of any of the four *Khilt* which leads to increased *Mawad fasida* (morbid matter) in the *Rahim* leading to weakness of *Urooqhayd'squwwathadima*.<sup>17, 19</sup> Jurjani, Azam Khan stated the cause of *Sayalan al-rahim* is weakness of *Quwate hadima* of *rahim*.<sup>13, 20</sup>

Khan (1983), Gilani (1996) and Qarshi (2011) mentioned various etiological factors of *Sayalan al-rahim* such as *Sozak* (gonorrhoea), *Aatshak* (syphilis), *Naqras* (gout), *Waram al-rahim* (reproductive tract

infections/metritis), *Inqalab al-rahim* (inversion of uterus), *Ihtibas al-tamth* (amenorrhea), *Waram al-mahbil* (vaginitis), *Su al-qinya* (anemia), generalized weakness and early primigravida.<sup>10, 22, 23</sup> Further, Khan (1983) stated that the excessive consumption of *Barid* and *Ratab aghdiya* is the predisposing factor of *Sayalan al-rahim*.<sup>22</sup> Gilani (1996) mentions that the worm infestation, stress and strain, *Qurooh al-rahim*, *Akalat al-rahim*, and *Sartan al-rahim* are causes of *Sayalan al-rahim*.<sup>23</sup>

### Alamat (Clinical features)

Unani Philosophers mentioned that the disease is caused by the predominance and disharmony of any *Khilt* and each *Khilt* had its particular symptoms.<sup>13, 17-20</sup> If predominant *Khilt* is *Khilt-i-dam* then the women experience with reddish color discharge, urine is thick and red in color, fatigue, excessive yawning, and feeling of sweetness in the mouth along with heaviness in eyes, and at the mastoid region. If the cause of *Sayalan al-rahim* is disharmony of *Khilt-i-balgham* then women experience with thick white color discharge along with the whitish color of skin, soft pulsation, cold tactile, decreased thirst, sleepiness, and laziness, excessive salivation, delayed digestion, drowsiness. In the case of *Khilt-i-safra*, discharge is pale and foul smelling associated with other symptoms such as pale color of skin, dryness and bitterness in the mouth, nausea, excessive thirst, burning micturition, and bilious vomiting. When the predominant *Khilt* is *Khilt-i-ssawda* then the discharge is thick, grayish. Other symptoms are brown to black colored skin, dryness, increase appetite, anxiousness, sadness, reddish black urine, and sleeplessness.<sup>13, 18, 19, 24</sup> Jurjani (2010) mentioned symptoms like dyspareunia, altered *Nabz* (pulse), symptoms of *Su' i-mizaj*, and increased pubic hairs.<sup>20</sup> Khan (2011) was of opinion that in *Sayalan al-rahim* patient usually presents with a complaint of dyspnea, loss of appetite, indigestion, and edema around orbits. Other symptoms associated with abnormal vaginal discharge such as pruritus vulvae, low backache, increased frequency of urine, heaviness in the lower abdomen, lethargy, generalized weakness, giddiness, dysmenorrhea, constipation, burning sensation in extremities, cramps in lower limbs and irritable mood. Further, they also stated that sometimes *Sayalan al-rahim* is also noted during *Haml* (pregnancy), which is copious, associated with severe itching.<sup>13, 19, 22</sup>

Khan (1983) and Gilani (1996) further stated that if the patient is young then the discharge is less viscid

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and shiny, which is adherent to the vestibules on examination.<sup>22, 23</sup> In the case of a newly married nulliparous woman, the discharge resembles egg white but is less viscous. In multiparous women, the discharge is viscid which looks like egg white and often mixed with blood or pus. In menopausal age women, the discharge is thick and resembles with cheese.<sup>10, 16</sup>

### Diagnosis

The diagnosis is based on the assessment of general signs and symptoms produced by the dominant and impaired *Khilt* and color of dominant *Khilt*. The predominance of *Khilt* can be best diagnosed with the help of swab methods. The patient is instructed to keep a sterile tampon overnight into the vagina, dried in shade, and examined to rule out the predominant *Khilt* by its color. If the color of the swab is red along with other signs then it indicates the predominance of *Khilt-i-dam*, if black and associated with dryness and weakness then it is *Khilt-i-sawda*, if yellow and associated with polydypsia then, it indicates *Khilt-i-safra*. If it is white and associated with lethargy then, it indicates *Khilt-i-balgham*.<sup>17, 19, 21</sup> Jurjani (2010) opined that in case of *Su' i-mizaj harr*, discharge is hot, red and associated with vulval burning. In case of *Su' i-mizajbarid*, discharge is thick, cold and blue, in *Sui-mizajyabis* discharge is less in amount, thick like *Samagh-e-arbi* and adherent to the vagina. If there is *Su' i-mizaj harr yabis*, discharge is thick, amount scanty, red in color and foul-smelling, and in case of *Su' i-mizajbarid tar* thin in consistency, cold and white in colour.<sup>20</sup> Gilani (1996) stated that if the excretory discharge is from vestibules of vagina then it is viscid, shiny, and white. If the discharge is from the vagina, it is irritant in nature and white in color. If the discharge is of uterine in origin then it is pale in color, thick and foul smelling. If it is from the cervix then it resembles an egg white. He further stated that discharge is mixed with blood and pus in case of cancer.<sup>23</sup>

### Tashkhees fareeqa (Differential diagnosis)

Gilani (1996) described differential diagnosis of *Sayalan al-rahim* with *Sayalan al-mani*, *Bawasir al-rahim*, *Quruh al-rahim*, *Buthur al-rahim*, *Sozak* and *Sartan al-rahim*. In the case of *Buthur al-rahim*, the discharge is scanty and associated with vulval itching and vulval irritation. In the case of *Sayalan al-mani* discharge is white, thick, and non-infective with or without any characteristic odor. The discharge is thick and foul-smelling in *Sozak* and *Quruh al-rahim*.

*Quruh al-rahim* is formed as a complication of *Buthur al-rahim* and the discharge is thick yellowish pus like mucoid depending upon the presence of *Afunat*. Usually, *Quruh al-rahim* and *Sozak* are painful. In *Bawasir al-rahim* excretory discharge is reddish black along with the presence of *Bawasiri* mass. In *Saratan al-rahim*, discharge is like meat water or black with the foul smell.<sup>17, 19, 23</sup> Buqrat mentioned, in case of *Quruh al-rahim*, patient present with pain in thighs and headache. Tabri (2010) stated that in case of *Quruh al-rahim* and *Buthur al-rahim*, discharge is foul smell.<sup>24</sup>

### Complications

The complications are weakness of *Quwwat hadima rahim* leads to *Uqr* (infertility) and *Isqat haml* (abortion).<sup>13, 17, 19</sup>

### Management

#### *Usoole ilaj* (Principle of treatment)

Majoosi (2010) mentioned to evacuate the predominant *Khilt* through the *Adwiya mundija* and *Mushila* of that particular *Khilt*.<sup>17</sup> Razi advised enema of astringent drugs in the case of infection of the uterus. He also advised the *Fasd* (venesection) in case of *Imtla* (congestion). Sometimes, *Sayalan al-rahim* is a periodic type, and then the treatment should be given in the resting phase, during active phase *Musikkinat* are required. He also advised the use of *Dalak*, *Riyazat*, and exposure to sunlight, *Qay*, and *Yabis hammam* which is very beneficial for *Sayalan al-rahim*.<sup>18</sup> Ibn Sina opined that too much of dominant quality of *Akhlat* associated with a temperament will produce negative effects. So, the principle of management of the disease is to correct the altered temperament. He also quoted that sometimes patients are given *Adwiya mushila* to evacuate *Akhlat* from the body. He also advised the local and oral use of *Qabiz Adwiya*. He also mentioned the use of *Taqleel ghidha* in *Zamane ibteda* of *Waram al-haar*.<sup>19</sup> Ibn Sina (1981) and Jurjani (2010) mentioned oral and local use of *Qabiz* (astringent) drugs to treat *Sayalan al-rahim*.<sup>19, 20</sup>

Baghdadi surmised that purgation with a decoction of the fruit is beneficial in the dominance of any *Khilt*. Emesis is also very beneficial in congestive diseases. He also mentioned the use of *Dalak* and *hammam* is very beneficial in *Sayalan al-rahim*.<sup>21</sup> Tabri (2010) has described the general principles of management of disease i.e., removal of the cause, evaluation of temperament of the patient, consideration of the age of the patient, the diet and routine activity of the

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patient, the occupation of the patient, the habitat of the patient and the family history of the patient. He stated if the *Ghalibkhilt* is *Balgham* or *Sawda* then *Joshanda* of *Afteemoon* should be given. In the cBase of *Ghalaba-i-safra*, *Joshanda* of *Maghzfilos*, *Khiyarshanmbar*, *Haleelazard*, *Maweezmunaqqa* along with *Iyarijfaiqra* or *Ghariqoon ½ Misqal*. For *Ghalaba-i-dam*, *fasdof warid-i-feeqalor akhalis* helpful followed by the use of *Habis dam adwiya*.<sup>24</sup> Rushd (1987) stated that the excess of any of the 4 basic *Akhlat* of body exerts its influence on the *Mizaj* of the person and treatment is based upon the correction of that particular humor.<sup>26</sup> Khan (2011) advised to excrete out the waste materials from the body by evacuation of predominant *Khilt* with various methods of *Istefragh*, followed by evacuation of the uterus with the help of *huqna* (enema).<sup>13</sup> Various Unani scholars quoted that this disease should be first treated by *Mundij* and *Mushily adwiya* (concoctive and purgative therapy) followed by the use of suppositories and *Muqawwi al-rahimadwiya* (Uterine tonics).<sup>13, 17, 19</sup> Khan (2011) mentioned that, if the discharge is associated with backache and fever, *Harr yabis adwiya* should be avoided (Khan, 2011).<sup>13</sup> Ajmal Khan opined that in the case of *Sayalan al-rahim*, maintenance of cleanliness and hygiene of reproductive organs is very important. He also stated that if *Waram al-rahim* leads to *Sayalan al-rahim* then treat *Waram al-rahim*.<sup>22</sup>

### *Ilaj* (Treatment)

The treatment is based on three categories.

#### *Ilajbil Ghidha* (Dietotherapy)

- Sina (1981) advised that in the initial phase of *Waram*, diet of the patient is restricted or the patient is provided a very less quantity of food. He also advised in *Zamana inhitat*, the patient should be given a diet to provide strength to *quwwatghadhiya*.<sup>19</sup>
- Baghdadi (2007) has mentioned that, in the case of *Ghalaba-i-dam*, patients should be advised to take no or very less quantity of *Ghidha* and avoid exercise. In *ghalaba-i-balgham*, rice, milk, and fruits are to be avoided.<sup>21</sup>
- Rushd (1987) quoted that proper diets are assumed to produce good *Akhlat* while improper one produce *Raddikhilt*.<sup>26</sup>
- Khan (2011) advised that patient should be given *muqawwaighidha* to strengthen *Quwwatghadhiya*.<sup>13p</sup>

- Khan (1983) mentioned the use of *Ghidha latif* and easily digestible food, for example, *Bakri ka shorba*, *Nakhodaab*, *Khurfa*, *palak*, *Tinda*, *Turai*, *Moong kidaal*, *Cchapaati*, *Doodh*, *Khichdi*, etc. He also advised that *Mewaahjat* like *Anar Shireen*, *Angoor*, *Amrod*, *Seb* are useful and avoid heavy, oily, and spicy and *Balgham* producing diet. He also mentioned to avoid heavy work and exercise.<sup>22</sup>

### **Ilaj bi ltadbeer and adwiya (Regimenal therapy and drug treatment)**

- Various eminent Unani scholars mentioned the use of formulation made with *Shingraf* (Compound of mercury and sulphur), *Baladur* (*Semicarpus anacardium* Linn.), and *Jauzmasil* (*Datura alba* Nees.) each in the same quantity along with *Beeshmudabaar* (*Aconitum napellus* Linn.) in an equal quantity of
- the above total drugs, grinded, sieved, made a small *hub* and given twice a day, very much beneficial in any type of *Sayalan al-rahim*.<sup>13</sup>
- *Tanqiya* of dominant humour is the line of treatment. In the case of *Ghalaba-i-dam* (dominance of blood humour), *Fasd* (venesection) *Warid-i-basaliq* (basilic vein) is advised for *Imala* (diversion). Followed by *Firzaja* (pessary) with *Habizadwiya* (astringent drugs) is useful. If there is *Ghalaba-i-balgham* (dominance of phlegm) then *Firzaja* of *habisadwiya* (astringent) along with *Jundbedastar* (*Corallium ruburum*) and *Filfi l* (*Piper nigrum* Linn.) are beneficial.<sup>17</sup>
- Sina (1981) has stated that initially *Tanqiya* (purification) is done, i.e., evacuation with the help of *Fasd* (venesection), and if required *Mushily* (purgative) therapy is employed. Followed by *Tanqiyai-rahim* (purification of uterus) with *Mujaffif* (dessicant) and *Munnaqi* drugs like *Joshandairsa* (*Iris ensata* Thunb.) and *Farasiyoon* along with *Dalak* (massage) of calf muscles with *Roghani-mulattifa* and *Harr adwiya* (warm medicines) for example *Roghani-izkhar* (*Andropogon Jwarancusa* Jones), *Aaqarqarha* (*Anacyclus pyrethrum* Dc.) and *Filfil* (*Piper nigrum* Linn.). *Hamul* (suppository) made with powder of equal quantity of *Bae khumba*, *baobarang* (*Embelia ribes* Burm f.), *Behrozakhushk*, *Qaranful* (*Syzygium aromatic*), *Narkachoor* (*Zingiber zerumbet*) along with *Roghankunjad* (*Sesamum indicum* Linn.) is also beneficial.<sup>19</sup>
- Jurjani (2010) and Sina (1981) discussed that *Fasd* of *Warid-i-basaliq* (basilic vein) is recommended because it carries blood towards the upper part of the body and inhibits the flow of blood towards the uterus and lower part of the body.<sup>20</sup>
- Razi (2001) advised that if the patient is having fever along with *Sayalan al-rahim*, then the use of *Qurstabasheerbarid* daily with water and the use of *Madaniyat* are helpful. If the *Sayalan al-rahim* is caused by *Akla-i-rahim* (uterine ulcer) then the *Hamul* with *Murdar sang* (Monoxide of lead), *Surma* (Black Antimony), *Shadna* (Nummulite), *Isfeezaj*, *Gul makhtoom*, *Armani* is helpful. He also advised that use of *Paneermayakhargosh* is useful in *Sayalan al-rahim* caused by *Ghalaba-i-dam*.<sup>18</sup>
- Baghdadi (2007) stated the use of *Fasd* (venesection) *Inghalaba-i-dam*. *Mushil* therapy (purgation) is advised with *Haleelazard* (*Terminalia chebula*), *Turbud* (*Opernaculina turpethum* Linn.) and *Saqmonia* (*Convolvulus scammonia*) if the *Ghalibkhilt* is *Safra*. In case of *Ghalaba-i-balgham*, purgation is done with *Sibr* (*Aloe barbadensis* Linn.), *Aiyarij* and for *Ghalaba-i-sawda* purgation is done with *Joshanda* (decoction) of *Aftimoon* (*Cuscutae pithyllum* Linn.) and *Hab-i-istamkhiqon*. *Huqna* (enema) with drugs having astringent properties is helpful in the absorption of excessive humours present in uterus for example enema with *Ma al-asal* (honey) or *Ibkama* and enema with decoction of *Irsa* (*Iris ensata* Thunb.) and *Lehsan* (*Allium sativum*). After that enema with the *Joshanda* (decoction) of *Mazu* (*Quercus infectoris*), *Gulnar* (*Punica grantum*), *Habb al-aas* (*Myrtus communis* Linn.), *Samarbabool* (pods of *Acacia arabica*), *Tarasees*, *post-i-anar* (*Punica grantum*) and *Kharnoobnabti* is also useful. *Abzan* (sitz bath) with *Shabak* (water is also helpful).<sup>21</sup>
- Majoosi (2010) and Baghdadi (2007) advised the oral use of *Murmakki* (*Cammiphora myrrha*) 2 *Masha* along with *Bayda-i-nimbirisht* for 3 days on an empty stomach for *Salayan al-rahim*.<sup>17, 21</sup>
- Khan (2011) advised *Firziya* made with the powder of *Juftbaloot* (*Quercus incana*), *Kharnoob* (*Prosopis farcta*), *Mazusabz* (*Quercus infectoria*), *Izfar tib*, *Aqaqiya* (*Gum of Acacia*

*arabica*), *Sandal safaid* (*Santalum alba*), and *Bargmorad* (*Myrtus communis*) 4.5 Masha each with *Roghanoodhindi* (*Paeonia emodi*) 1 Masha.<sup>13</sup>

- Khan (2011) advised *Huqna* (enema) with *Joshanda* (decoction) of *Asl-us-oos* (*Glycyrrhiza glabra* Linn.), *Izkhar* (*Cymbopogon jwarancusa*), *Irsa* (*Iris ensata* Thunb.), *Nakhudsiyah* (*Cicera rietinum* Linn.) mixed with *Iyarij-i-faiqra*; if *Hararat* is there then *arid* and *mudir* seeds are useful. After *Huqna* (enema) with drugs having *Qabiz* (astringent) property, *Firzaja* (pessary) made from *Habis* drugs are given for *Taqwiyat-i-rahim*, make a fine powder of *Mazusabz* (*Quercus infectoria*) 7g, *Tukhmehummaz* (*Rumex vesicarius* L.) 7g, *Jozesard* and *Khabs al-hadeed* (Iron Oxide) 3.5g each, and then boil *Juftbaloot* (*Quercus incana*) and *Gulnar* (*Punicagranatum*) in water and filter that extract, dip the tampon in this extract then sprinkle the above- mentioned powder and insert the tampon intravaginally. Avoid *Harr yabisadwiya* (warm and dry drugs), if *Sayalan al-rahim* is associated with suprapubic pain and fever and use *Khamiragaozaban*, *Arqiyat*, *Sharbatbazoori* or boil 10 or 20 grinded *Kunjad* (*Sesamum indicum*) and *Tukhmekhashkhash* (*Papaver somniferum*) in water, add *Roghan gul*, *Baydamurgh* (Hen's egg), *Zafran* (*Crocus stavius*) 1g and *Dalak soda* 4g in it to make an ointment and use per vagina. He also mentioned various *Muffaradadwiya* and *Murakkab* formulations for *Sayalan al-rahim*.<sup>13</sup>

### Single drugs

*Abzan* of *sSamar mughilan* (Pods of *Acacia arabica*) followed by the *Hamul* of the same. *Aab-i-inabus-salab*, *Kundur* (*Boswellia serrata* Roxb.), *Aqaqiya* (Gum of *Acacia arabica*), *Gulnar* (Flower of *Punica grantum*), *Karm dana*, *shibb-i-yamani* (Alum), *Kasoos* (*Cuscuta reflexa* Roxb.), *Hab ul aas* (Fruit of *Myrtus communis*), *Bargaas* (Leaves of *Myrtus communis*), *Samarwabargmughilan* (Pods and Leaves of *Acacia arabica*), *Beekhnifofar* (Root of *Nymphaea alba*), any of these can be used as *Hamul*. *Mazusokhta* (*Quercus infectoria*) soaks in *Sharaborsimaq* with honey is used as *Hamul*. *Huqna* with *joshanda* (decoction) of *Baloot kofta* or *Nardeen* (*Nardostachys jatamansi*) is helpful.<sup>13</sup>

### Compound drugs

*Talmakhana* (*Steracantha longifolia*), *Beejband* (*Sida cordifolia*), *Gulesupari* (*Areca catechu*), *Gulepista* (*Pistacia vera*), *Post-i-berun-e-pista* (*Pistacia vera*), *Fuwah*, *Guledhawa* (*Anogeissus latifolia*) each 4 Masha, *Salabmisri* (*Orchis latifolia*), *Ard moong biryan*, *Maghze tukhme tamarhindi* (*Tamarindus indica*) each 1 Tola, *Mastagi* (*Pistacia lentiscus*) 3 Masha and *Qand safaid* equal to the total weight of these drugs. Prepare *Sufuf* and take 7 Masha of this with 10 Tola of *Arq gaozaban* (Khan, 2011).<sup>13</sup> If *Sayalan al-rahim* is caused by *Waram al-rahim* then the local use of *Marham dakhliyon* along with *Ab-i-mako sabz*, *Ab-i-kasniz sabz* 1 Tola each mixed with *Roghan gul* 6 Masha and *Bayda murgh* 1 Adad is useful. He also advised evacuation of uterus with *Nuskha-i-jhar* followed by the use *Muqwiadwiya* to maintain the normal health of the body.<sup>13</sup>

If the *Sayalan al-rahim* is because of *Waram al-rahim* (uterine inflammation), *Kushta post baydamurgh*, *Kushta qalai* 2 *Baranj* each, mixed with *Majoonmoocharas* daily in the morning is useful. Use of *Kushta musalas* 2 *Baranj* and *Kushtakhabsulhadeed* 2 *Baranja* long with *Jawarishjalinoos* 7g after food is also useful.<sup>13</sup>

### Contemporary concept

Vaginal discharge is the commonest complaint in the reproductive age group.<sup>1-5</sup> That can be physiological or pathological in nature.<sup>1-5</sup> Non-sexually transmitted infections are bacterial vaginosis, candida infections, mucopurulent cervicitis, and pelvic inflammatory disease. Sexually transmitted infections are *Chlamydia trachomatis*, *Neisseria gonorrhoea*, and *trichomonas vaginalis*.<sup>27</sup> Vaginitis is the commonest RTIs and it is described by vaginal discharge, malodor, vulvar itching or vulvar irritation.<sup>28</sup> Vaginitis mainly encompasses three main etiologies, namely bacterial vaginosis (BV), vaginal candidiasis (VVC), and trichomoniasis (TV),<sup>6,28</sup> generally accounts for 90% of all etiologies.<sup>28</sup> The commonest being BV followed by VVC and TV though, multiple infections coexist.<sup>4, 29</sup> If untreated, RTIs can lead to adverse health outcomes. The first choice to treat RTIs according to different pathogens is antibiotics. No single wide-spectrum formulation is available for intravaginal use to cure or prevent infections caused by commonly encountered vaginal pathogens. The common drugs used in RTIs are metronidazole,



clotrimazole pessary and antibiotics like doxycycline and ciprofloxacin etc.<sup>27</sup>

### Evidence based Herbal medicine for the treatment of abnormal vaginal discharge

In a randomized, single-blind, standard controlled study on the efficacy of *Tamarindus indicus*, *Melia* and *Santalum album* against the combination of azithromycin, fluconazole, and secnidazole in syndromic management of abnormal vaginal discharge found no significant differences between the two groups. The Unani formulation was effective to alleviate the disease with associated symptoms without any side effects and was useful in syndromic management of vaginal discharge. They reported that aforementioned Unani herbs had antimicrobial, anti-inflammatory and astringent property as they possess tanins, flavonoids and other secondary metabolites.<sup>30</sup>

A comparative randomized controlled study between a poly herbal pessary with a ginlac-V pessary for treatment of women with symptomatic vaginal discharge found that both provided symptomatic relief in most of the women.<sup>31</sup>

Salhan et al., (2017) also conducted a phase II randomized controlled trial to evaluate the efficacy and safety of parneem polyherbal vaginal tablets compared with betadine vaginal pessary in women with symptoms of abnormal vaginal discharge. They found that 92% of women using parneem were relieved of their symptoms of AVD against 81.6% of women using betadine.<sup>12</sup>

A comparative study on the therapeutic effects of *Zataria multiflora* vaginal cream versus metronidazole vaginal gel on BV showed that *Z. multiflora* had a similar effect as metronidazole.<sup>32</sup> Motlagh et al., (2018) conducted a randomized controlled clinical trial treated with oral metronidazole plus *Prangos ferulacea* vaginal cream and the other with oral metronidazole plus a placebo vaginal cream for seven days. This trial showed that *Prangos ferulacea* vaginal cream accelerated the recovery of bacterial vaginosis of patients with bacterial vaginosis. It can be used effectively as a complementary treatment with oral metronidazole in cases of medication resistance and also in people wishing to use herbal remedies.<sup>33</sup> A study showed that the effects of feilin vaginal Gel (FVG), a Chinese herbal formula, on the treatment of cervicitis in the mouse model could significantly inhibit the cervicitis. FVG could down-regulate the bacterial load; mitigate the pathological injury.<sup>34</sup>

A single-blind, randomized standard controlled study showed that a group who is given Acacia powder shows a significant improvement in a complaint of vaginal discharge and QOL in the uterine prolapse patient as compared to a Control Group.<sup>35</sup>

Another study showed that the decoction of *Chal babool* (bark of *Acacia arabica*) has similar effects as the control drug in the management of Bacterial Vaginosis.<sup>36</sup> The author stated that acacia was beneficial as it has antimicrobial, astringent, anti-inflammatory, analgesic and antioxidant property.<sup>36</sup> Khan et al., 2007 conducted a randomized, single-blind placebo- controlled trial to evaluate the efficacy of *Safoof sailan* compared with placebo, in the treatment of abnormal vaginal discharge. They found that *Safoof sailan* was very efficacious than placebo.<sup>37</sup>

### Conclusion

The Unani classical literature is enriched with etiology, clinical features, diagnosis, differential diagnosis, prognosis, complications, and management of *Sayalan al-rahim*. Further, very few clinical studies are published and showed that they are useful in *Sayalan al-rahim*. However, the evidence is weak. Further, double-blind, randomized controlled trials in large sample sizes are recommended.

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