Mediterranean Journal of
Pharmacy & Pharmaceutical Sciences
www.medjpps.com

ISSN: 2789-1895 online
ISSN: 2958-3101 print

REVIEW article

Shiyaf: Integrating the traditional Unani dosage form into the current medical framework

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Article number: 221, **Received:** 16-06-2025, **Accepted:** 17-08-2025, **Published online:** 18-08-2025

HOW TO CITE THIS

Arif S, et al. *Shiyaf:* Integrating the traditional Unani dosage form into the current medical framework. Mediterr J Pharm Pharm Sci. 2025; 5(3): 63-74. [Article number: 221]. https://doi.org/10.5281/zenodo.16895301

Keywords: Herbal suppositories, suppository, traditional Unani dosage form, Unani medicine

Abstract: The Unani system of medicine encompasses a diverse array of dosage forms intended for local application, among which *Shiyaf* stands out as a distinctive solid preparation. It is defined as a dosage form specially prepared by incorporating finely powdered drugs with suitable liquid media and manually shaping them into cylindrical or conical forms. Initially, *Shiyaf* was predominantly used for ocular conditions, applied after being rubbed in a liquid medium and then gently applied to the eye using a finger or an applicator. Over time, its scope expanded to include insertion into rectal, vaginal, aural, and urethral orifices to produce therapeutic effects, along with application in wounds to deliver localized action. It has been historically indicated in conditions ranging from cataract and conjunctivitis to constipation, infertility, arthritis, and sexual debility. Despite its broad utility, *Shiyaf* has diminished in the modern practice due to its production process and lack of scientific evidence supporting its efficacy. To bridge this gap, there is a pressing need to reformulate and re-evaluate *Shiyaf* to establish its value in the contemporary world. A comprehensive review of classical texts such as *Al-Qarabadeen*, *Qarabadeen-e-Kabir*, *Qarabadeen-e-Azam,* etc., alongside searches in multiple databases (Google Scholar, PubMed, ResearchGate) was conducted to gather relevant data. In this context, a suppository emerges as the most appropriate modern equivalent to a *Shiyaf*. It is defined as a solid dosage form intended for insertion into body cavities, where it melts or dissolves to exert local or systemic effects. They are well-established in current therapeutics for conditions like constipation, vaginal infections, pain, fever, and other related ailments. By adapting *Shiyaf* into contemporary suppository formulations, Unani principles can be preserved and integrated into the modern healthcare system. This harmonization promises to enhance therapeutic acceptance, ensure dosage consistency, improve patient compliance, and foster scientific validation, ultimately revitalizing a valuable traditional preparation.

Introduction

The Unani system of medicine is a traditional system of healthcare recognized for its holistic approach to health and disease. It was founded on the principles laid down by Hippocrates (460-370 BC) and Galen (131-210 AD) [1]. Originally pioneered in ancient Greece, it subsequently evolved in Rome, the Arab, Spain, Iran, and the Indian subcontinent [2]. It was introduced in India by the Mughals, where it quickly took firm root. The system gained widespread popularity among the masses and soon spread across the country [3]. It is now officially recognized as an integral part of the Ministry of AYUSH, Government of India [4]. The Unani

ISSN: 2789-1895 online
ISSN: 2958-3101 print

medicine incorporates a wide range of dosage forms designed for systemic and local effects. Among these, several are specifically formulated for local application, such as *Shiyaf, Hamul, Firzaja, Fatila, Sanun, Madugh, Barud, Kuhl, Zarur, Nafukh, Wajur, Atus, Ghaza, Ghaliya, Ubtan, Marham, Qayruti, Zimad, Lazooq,* etc. These formulations are designed to deliver therapeutic effects directly to the targeted area. Each of these forms serves a unique purpose, catering to different ailments and routes of administration [5-7]. Among these, *Shiyaf, Hamul, Firzaja,* and *Fatila* are the class of dosage forms that are meant for insertion into the natural orifices of the body other than the mouth. These are unique from each other in terms of their preparation and drug delivery systems. *Firzaja* is a conical or cylindrical-shaped dosage form specific to the vaginal delivery system whereas *Hamul* and *Fatila* are designed as a piece of cloth or a wick of cotton used after soaking or dipping in a liquid mixture of certain drugs for application in different body orifices [8].

Shiyaf holds a distinct place in this category owing to its versatile use, composition, and preparation method. According to *WHO international standard terminologies on Unani medicine*, *Shiyaf* is defined as a solid conical medicinal preparation made from thick paste of finely powdered drugs with suitable liquid media, used locally as such or after grinding; used as suppository in vaginal ailments and fine powder is used in eyes with help of an applicator (Term ID: IUMT-6.2.10) [8]. The Classical Unani texts describe *Shiyaf* as a solid, conical preparation recommended either to treat ophthalmic conditions or for insertion into natural orifices such as the rectum, vagina, urethra, or even wounds, to manage disorders associated with these sites [5, 9-12]. *Shiyaf* is a dosage form that dates back to the Hippocratic era, with some claims suggesting its use even in the pre-Hippocratic period [13]. Its application is believed to have existed since the early days of medicinal practice. Its use has been remarkably documented in classical Unani literature such as *Qarabadeen-e-Azam, Al-Qarabadeen, Qarabadeen-e-Ehsani, Qarabadeen-e-Kabeer, Qarabadeen-e-Jadeed*, among others, for the management of various disorders related to the eye, rectum, vagina, etc., [5, 9, 16-26] which highlights its vast therapeutic efficacy and versatility in treating several conditions via these routes. It suggests that *Shiyaf* was a widely practiced and well-established dosage form in the ancient period. However, in the modern era, it is rarely used and seldom prescribed by physicians. This decline is largely due to difficulty in its traditional preparation method, lack of standardization, and current patient preferences. Additionally, the lack of scientific validation of its therapeutic efficacy has further contributed to its diminished clinical application. However, with advancements in pharmaceutical technology and a renewed interest in traditional systems of medicine, there is an opportunity to revisit and revitalize such classical dosage forms in a modern context. In this regard, *Shiyaf* can be reimagined using contemporary pharmaceutical techniques to improve its stability, efficacy, ease of use, and patient compliance. One of the most promising modern dosage forms that parallels the function and route of *Shiyaf* is the suppository. Both formulations utilize different bodily orifices to administer medication, allowing the drug to exert both local and systemic effects. Therefore, understanding and incorporating the principles of suppository formulation can pave the way for the modernization of *Shiyaf*, potentially transforming it into a scientifically accepted and therapeutically viable dosage form once again. With this foundation, this article aims to provide a critical review of *Shiyaf*, exploring its definition, formulations, indications, and applications, while assessing and analyzing its counter form from the modern drug delivery system that will make it more stable and efficient.

Methods

The primary objective of this review is to delve into the rich heritage of classical Unani formulations with specific reference to *Shiyaf*, and to assess its potential relevance in the current era. To achieve this, authentic Unani classical texts were extensively reviewed for information related to the description, formulations, indications, method of preparation, and therapeutic applications of *Shiyaf*. Only original classical Unani textbooks, recognized as authoritative sources in the Unani system of medicine, were included to ensure the

ISSN: 2789-1895 online
ISSN: 2958-3101 print

authenticity of the information. The literature review was personally conducted by the authors in the UG and PG Library of the Ayurvedic and Unani Tibbia College and Hospital. In addition, major scientific databases such as Google Scholar, PubMed, and ResearchGate were searched across all publication years to retrieve available literature on the concept of *Shiyaf* and related terms. These platforms were also explored for information on suppositories. The focus was on selecting references that provided insight into the types, mechanism of action, method of preparation, and therapeutic effects of suppositories. Furthermore, studies regarding the formulation of suppositories using herbal ingredients along with commercially available suppositories intended for a range of therapeutic conditions were also reviewed.

Inclusion criteria

1. Original Unani classical textbooks are recognized as authentic sources in the Unani system.
2. Texts containing detailed or partial references to *Shiyaf*, its preparation, or usage.
3. Peer-reviewed articles, review papers, or original research studies focusing specifically on suppositories.
4. Literature available in English, accessed from credible databases such as PubMed, Google Scholar, and ResearchGate.
5. Studies focusing on the formulation and evaluation of herbal suppositories.

Exclusion criteria

1. Non-classical or secondary sources of Unani medicine.
2. Formulations containing obsolete drugs or drugs whose identification could not be confirmed.
3. Articles unrelated to pharmaceutical suppositories.
4. Literature with insufficient data, lacking peer review, or not available in full text.
5. Non-English publications that were not accessible in translation.

Discussion

Description of Shiyaf in Unani classical literature: In ancient times, the term *Shiyaf* was specifically used only for a dosage form meant for eye aliments but over time, its use expanded to include application in deep wounds as well as in various external orifices of the body, such as the nostrils, ears, rectum, and vagina, etc. It refers to a solid dosage form which is specially prepared by triturating specific drugs with suitable liquid media and molding them into cylindrical or conical shape [13, 14]. According to Najmul Ghani, *Shiyaf* refers to a medicinal preparation placed in the rectum. It is typically conical in shape, measuring 1 to 1.5 inches in length with a narrower end of approximately half an inch to facilitate easier insertion into the rectum [11]. To ensure a more significant and rapid therapeutic effect in the colon, its length should ideally extend to six *ungal* (finger breadth) [15]. Hakim Abdul Hafeez, in his Compendium "*Qarabdeen-e-Jadeed,"* has described *Shiyaf* as a dosage form that is generally small in size, slightly larger than barley grains, with tapered edges that are thinner compared to the central portion [16]. In ocular conditions, *Shiyaf* is typically softened or rubbed in a liquid medium before being gently applied to the eye with the help of a finger or a suitable applicator. [10,12]. The classical method of preparing this dosage form involves finely powdering the ingredients and sieving them through a cloth. The powdered material is then incorporated with a suitable binder such as *Samagh Arbi* (Acacia), *Kateera* (Tragacanth), or egg white, and mixed thoroughly. The mixture is then manually shaped into specific forms, such as cylindrical or conical, and thoroughly dried [16]. The size of the *Shiyaf* should be approximately that of a barley grain when required to use in ocular conditions or deep wounds [5, 12, 17].

In *Khazainul Advia*, Najmul Ghani has explained the preparation of *Shiyaf* in two ways: one, that the paste of drugs is shaped into a conical wick, with one end broader and the other narrower, then dried. When required, it is lubricated with a suitable oil, while its administration and second method involve molding or carving of soap into a conical wick, coated with oil, and sprinkled with a fine medicinal powder before being inserted into the rectum [11]. The purpose of this conical shape is to facilitate effective application at various sites of administration. In eye disorders, it is applied by holding the thinner end and rubbing the broader end for

ISSN: 2789-1895 online
ISSN: 2958-3101 print

effective application, whereas in the case of bodily orifices such as the rectum, it is inserted from the narrower end to ensure easier and more comfortable administration [5, 11, 17].

Classical formulations and therapeutic use of Shiyaf mentioned in the Unani system of medicine (USM): Based on an extensive literature survey, various *Shiyaf* formulations documented in classical Unani texts have been compiled and presented in **Table 1**, along with their specified indications and sites of application.

Table 1: Various formulations of *Shiyaf* documented in Unani literature

No.	Unani Formulations	Indications	Site of Application
1	*Andraeen ka guda, Qantureen daqeeq, Namak Hindi, Haddiyon ka guda, Zard Alvi talkh* [5]	*Deedan Am'a zirin* (Worm infestation of the distal colon)	Rectal
2	*Benafsha, Tukhm Khatmi, Gul-e-Khatmi, Babuna, Akleel-ul-mulk, Maweez Munaqqa, Shakar Surkh, Maghz Amaltas* Triturate all the drugs with *Aab-e-Makko-e-Sabz* and prepare in the form of *Shiyaf* [5]	*Warm Sulb Raham* (Metritis)	Vaginal
3	*Hilteet, Farfiyun, Mushk Khalis* [9]	*Zuf-al-Bah* (Sexual debility)	Rectal
4	*Sakbeenaj, Ja'o Sheer, Guggul, Ushq, Namak Hindi, Jawakhar, Suranjan Misri, Shaqaqel, Andraeen ka guda, Tukhm Karafs, Saunf Desi, Saunf Romi, Anzrot, Jund Bedastar, Narkachor, Qust, Nagarmutha, Mahi Zehraj, Suddab Khushk, Namak Hindi* Triturate all the drugs with *Aab-e-Suddab* and prepare in the form of *Shiyaf* [9]	*Waja-ul-Zahr* and *Waja-ul-Mafasil* (Backache and Arthritis)	Rectal
5	*Marqasheesha Sokhta, Dar Filfil, Aqleemia-e-Zahbi, Dud Mas* Triturate all the drugs with *Ma'a Matariya* (Rain water) and prepare in the form of *Shiyaf* [17]	*Nuzul-ul-Ma'a* (Cataract)	Ophthalmic
6	*Turanjbeen, Sabun, Khatmi, Namak Ta'am. Shakar Surkh* [17]	*Qabz* (Constipation)	Rectal
7	*Safaida Arzeez, Iqleemiya-e-Fizza (Rupa Mukhi), Kateera, Afyun, Nishast-e-Gandum* [18]	*Ramad* (Conjunctivitis)	Ophthalmic
8.	*Kundur tar, Mur Makki, Zafran, Afyun khalis* [19]	*Zaheer Sadiq* (Dysentery)	Rectal
9.	*Jaiphal, Mayen, Phitkari Baryan, Post Anar* Triturate all the drugs with water and prepare in the form of *Shiyaf* [5, 20]	*Uqr* (Infertility)	Vaginal
10	*Berg Gul-e-Abbasi, Mirch Siyah, Tukhm Saras, Phitkari, Shura Qalmi* [20]	*Zauf Basar* (Visual impairment)	Ophthalmic
11	*Chaksu muqashar, Sang-e-Basri, Phitkari, Nabat Safaid, Shura Qalmi* Triturate all the drugs with *Arq Lemu* and prepare in the form of *Shiyaf* [21]	*Zafara/ Nakhuna* (Pterygium)	Ophthalmic
12	*Marzanjosh, Khardal, Suddab, Shaham Hanzal, Zahra-e-Gosfand, Raughan-e-Badam talkh* Rub the *Shiyaf* in *Raughan-e-Badam talkh*, and use it as ear drops [22]	*Waqr/ Butlan-e- Sama'at* (Deafness)	Auricular (Otic)
13	*Tootiya-e-maghsul, Murdarsang, Sang Basri, Loban, Phitkari baryan, Mazu, Gul-e-Naar, Aqaqiya, Dam-ul-Akhween, Guncha Anar tarsh, Kagaz sokhta, Gond Babool* [22]	*Quruh-e-Suzak* (Gonorrheal ulcer)	Urethral
14	*Kundash, Maweez Munaqqa, Namak Sajji, Zangar, Zahra-e-Gosfand* [22]	*Nakseer* (Epistaxis)	Nasal
15	*Mur Makki, Aqaqiya, Ajwain Khurasani, Gond Babool, Chanul Baryan, Habb-ul-Aas* Triturate all the drugs with water and prepare in the form of *Shiyaf* [23]	*Bawaseer-e-Damiya* (Bleeding piles)	Rectal

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ISSN: 2958-3101 print

16	*Marsaf, Aqaqiya, Bazrul Banj, Samagh Arbi, Baranj Budada* Triturate all the drugs with *Aab Murad* and prepare in the form of *Shiyaf* [24]	*Bawaseer-e-Damiya* (Bleeding piles)	Rectal
17	*Boorah Armani, Shaham Hanzal, Muqil, Sakbeenaj, Saqmunia, Shakar Surkh* [24]	*Qulanj* (Intestinal colic)	Rectal
18	*Aelwa, Bandal* Triturate both the drugs with *Sharab* and prepare in the form of *Shiyaf* [25]	*Musqit-e-Janin* (Abortifacient)	Vaginal
19	*Luaab-e-Hulba, Luaab-e-Katan, Zafran* [25]	*Waja-ul-Ain* and *Waja-ul-Uzn* (Ocular pain and Earache)	Ophthalmic and Auricular (Otic)
20	*Fautanj khushk, Sheetraj, Khardal, Post Bekh Kibr* [26]	*Waja-al-Warik* (Pain of hip joint)	Rectal

Suppositories: A modern parallel to Shiyaf: Suppositories are a promising method of drug delivery, enabling the administration of medications through various bodily orifices such as the rectum, vagina, or urethra, bypassing the oral route [27]. They have become widely used in contemporary medicine, with their prevalence increasing significantly due to their effectiveness in delivering medications via these alternative routes. They have emerged as a more convenient alternative to liquid enema formulations [28, 29]. The derivation of the word suppository is from the Latin *supponere*, meaning "to place under," as derived from *sub* (under) and *ponere* (to place) [30]. They are best described as solid or semi-solid dosage form designed to melt at body temperature or dissolves (or disperse) into the aqueous secretions of the body cavity to offer both local and systemic therapeutic effects [29, 31]. In the United States Pharmacopeia (USP), the term "suppository" primarily refers to rectal dosage form, whereas, the Japanese Pharmacopoeia (JP) includes both rectal and vaginal suppositories under the general category of "suppository," reflecting a broader classification [32, 33].

In recent years, the demand for suppositories has increased significantly, owing to their rising acceptance within the pharmaceutical and healthcare sectors. In 2023, the global pharmaceutical suppositories market was valued at approximately $1.7 billion and is anticipated to grow to $3.2 billion by 2035, reflecting a compound annual growth rate (CAGR) of 5.7% between 2024 and 2035. Factors such as the growing incidence of both acute and chronic illnesses, an expanding elderly population, and greater efforts to promote awareness and education regarding suppository use are contributing to this market expansion. In 2024, North America held the largest market share. However, the Asia-Pacific region is projected to experience the most rapid growth during the forecast period [34, 35].

Classification of suppositories: Suppositories are primarily classified based on their site of administration, with the most common types being rectal, vaginal, and urethral suppositories [36]. Rectal suppositories are usually torpedo or conical-shaped and used to produce both local and systemic effects [37]. They generally weigh about 2 g and are 1-1.5 inches long [38]. Vaginal suppositories, also coined as pessaries, are ovoid or globular in shape and weigh about 3-5 g, whereas Urethral suppositories, also termed as bougies, meant for insertion in the urethra in males, are approximately 5 mm in diameter with the length being about 125 mm [39]. Suppositories are typically formulated by incorporating active pharmaceutical ingredients (API), either in extract or powdered form, into suitable bases. These bases are selected based on their ability to melt or dissolve at body temperature and may be classified as either natural such as lipophilic (e.g., cocoa butter, coconut oil, hydrogenated vegetable oils, and hard fats) or hydrophilic (e.g., glycerinated gelatin and polyethylene glycols) or synthetic, including emulsifying bases [40, 41]. The common methods of suppository preparation include the hand-rolling method, the molding or fusion method, which utilizes molds of various shapes and sizes, and the cold compression method, which allows for direct compression of the drug-base mixture without heating. For large-scale production, automated moulding machines are preferred. These machines provide significant benefits over manual techniques, such as increased production speed, precision,

ISSN: 2789-1895 online
ISSN: 2958-3101 print

and hygiene. With the help of such equipment, production can reach up to 10,000 units per hour. Moreover, this process minimizes the risks of air entrapment and contaminant exposure, ensuring high-quality, reproducible dosage form [42].

Mechanism of action: Despite the distinct environments of the rectum and vagina, the insertion of a suppository typically follows a similar sequence of events leading to drug absorption. Drug delivery from a suppository, like all topically applied dosage forms, occurs primarily by passive diffusion. Once introduced into the body cavity, the suppository responds to the local environment, resulting in dissolving in the fluid or melting on the mucous membrane, depending on whether it is hydrophilic or lipophilic. This process facilitates the release of the active pharmaceutical ingredient, allowing it to come into contact with the mucosal surface. The drug then permeates the mucous membrane, either exerting its effect locally or being absorbed into the systemic circulation [28]. The significance of suppositories lies in their ability to facilitate rapid drug absorption, prolonged drug action, bypass the gastrointestinal tract, avoid first-pass metabolism, and enable drug administration in patients with nausea, vomiting, or swallowing difficulty. However, it presents certain disadvantages, which include mucosal irritation, patient discomfort, and variability in absorption, among others [43, 44]. With advancing pharmaceutical technologies, various innovations have been introduced in the field of suppositories, which aim to improve treatment efficacy, safety, and patient compliance while minimizing discomfort. Some notable developments include bilayered suppositories, effervescent suppositories, Gel-based suppositories, and sustained-release suppositories [29]. Among these, bilayered suppositories are gaining significant interest as they are designed to combine two or more active components in a single dosage form, enabling sequential drug release and preventing incompatibility [45]. For instance, a study conducted by Ali Muaadh in 2017 had the successful formulation and in vitro evaluation of double-layered rectal suppositories containing Paracetamol and Metoclopramide HCl for the treatment of migraine. This formulation allowed for rapid pain relief from Paracetamol and sustained antiemetic action from Metoclopramide, demonstrating promising results in terms of drug release profile and therapeutic potential [46]. The majority of suppositories available in the market are utilized for either local therapeutic use in conditions like constipation, hemorrhoids, and anorectal or vaginal infections or for systemic relief, such as in the management of fever, pain, nausea, or seizures [44]. **Table 2** summarizes the different suppository formulations, highlighting their active ingredients and corresponding clinical indications.

Table 2: Commercially available suppository preparations with their active components and indications

No.	Brand name	Drug name (API)	Strength	Indication	Route
1	FEVERALL [47-50]	Acetaminophen	80 mg, 120 mg, 325 mg	Pain, Fever	Rectal
2	Clotrimazole Soft gel Pessary [51, 52]	Clotrimazole	100 mg	Vaginal candidiasis, Vaginitis	Vaginal
3	Progesterone Pessary [51,53]	Progesterone	100 mg, 200 mg, 400 mg	Progesterone supplementation	Vaginal
4	Paracetamol suppository [51]	Paracetamol	80 mg, 170 mg	Pain, fever	Rectal
5	Domperidone Suppository [51]	Domperidone	30 mg	Nausea, Vomiting	Rectal
6	Canasa [54-56]	Mesalamine	1000 mg	Ulcerative proctitis	Rectal
7	Indocin [51, 57, 58]	Indomethacin	50 mg, 100 mg	Arthritis	Rectal
8	Dulcolax [59, 60]	Bisacodyl	10 mg	Constipation	Rectal
9	Dulcoflex [59, 61]	Bisacodyl	5 mg, 10 mg	Constipation	Rectal
10	Voltaren [51, 62, 63]	Diclofenac sodium	100 mg (adults), 12.5 mg (children)	Pain, fever, inflammation	Rectal
11	Terconazole Vaginal suppository [64, 65]	Terconazole	80 mg	Vaginal Candidiasis	Vaginal
12	Migergot [66, 67]	Ergotamine tartrate, caffeine	100 mg, 2.0 mg	Migraine	Rectal

ISSN: 2789-1895 online
ISSN: 2958-3101 print

13	Monistat 3 [51, 68, 69]	Miconazole nitrate	200 mg, 100 mg	Vulvovaginal candidiasis (Moniliasis)	Vaginal
14	Compro [70, 71]	Prochlorperazine	25 mg	Nausea, Vomiting	Rectal
15	Slipizem [72, 73]	Diazepam	2.5 mg, 5.0 mg	Febrile seizure	Rectal

Table 3 highlights various types of Herbal or Unani suppositories that have been formulated by research scholars, reflecting the growing interest and ongoing development in the use of herbal ingredients for suppository formulations.

Table 3: Herbal-based suppository formulations

No.	Active ingredients	Botanical Name	Indication	Route	Study type
1	Saw palmetto fruits CO_2 extract, common marigold flowers CO_2 extract, lovage radix CO_2 extract [74]	*Serenoa repens, Calendula officinalis, Levisticum officinale*	Prostatitis	Rectal	Formulation & Evaluation
2	Flaxseed [75]	*Linum usitatissimum*	Hemorrhoids, Constipation & Bacterial infections of the anus	Rectal	Formulation & Evaluation
3	Guggul, Cotton buttons, Haritaki [76]	*Commiphora weghtii, Tridax procumbens, Terminalia chebula Retz*	Hemorrhoids	Rectal	Formulation & Evaluation
4	Doob ghas/ Durva (Doob grass) [77]	*Cynodon dactylon*	UTI	Vaginal	Formulation & Evaluation
5	Bitter wood leaves, Nirgundi leaves [78]	*Quassia indica, Vitex negundo*	Anthelmintic	Rectal	Formulation & Evaluation
6	Pinang seeds [79]	*Areca catechu*	Anthelmintic	Rectal	Formulation & Evaluation
7	Marshmallow root [80]	*Althae officinalis*	Intrauterine adhesions (Asherman's Syndrome)	Vaginal	Formulation & Evaluation
8	Phitkari [81]	*Alum*	Hemorrhoids	Rectal	Formulation & Evaluation
9	Moringa [82]	*Moringa oleifera*	Hemorrhoids	Rectal	Formulation & Evaluation
10	Curcumin [83]	*Curcuma longa*	Vaginal candidiasis	Vaginal	Formulation & evaluation
11	Myrtle & Oak gall [84]	*Myrtus communis, Quercus infectoria*	Vaginitis	Vaginal	Randomized Clinical Trial
12	Banafsha [85]	*Viola odorata*	Menopausal Vaginal Atrophy	Vaginal	Triple blind randomized clinical trial
13	Indian Dill [86]	*Anethum graveolens*	PPH	Vaginal	Single Blind Clinical Trial Study
14	Licorice root, chamomile, tea tree [87]	*Glycyrrhiza glabra, Matricaria chamomilla, Melaleuca alternifolia*	Immuno-modulating activity	Rectal	Pre-clinical study
15	Kafoor, gum acacia [88]	*Cinnamomum camphora, Acacia arabica*	Heavy menstrual bleeding	Vaginal	Single-center, randomized, double-dummy, standard-controlled parallel-group clinical Trial
16	Berg Hina [89]	*Lawsonia inermis*	Anti-microbial activity	Vaginal	Formulation and Evaluation, in vitro study
17	Aloe Vera [90]	*Aloe barbadensis*	Constipation	Rectal	Formulation & Evaluation, *in vitro* study

Integrating traditional Shiyaf with contemporary pharmaceutics: In the current medical practice, delivery of medication via rectal, vaginal, or urethral routes serves as a significant alternative, offering local and systemic advantages. Interestingly, these very principles were long understood and applied through formulations like *Shiyaf* in the Unani system. This highlights the forward-thinking nature of traditional medicine and opens up possibilities for harmonizing classical wisdom with modern drug design. It is clearly understood that both *Shiyaf* and suppositories belong to a similar branch of dosage forms. They both serve the same purpose, that is, delivering medication through various bodily orifices. Suppository represents the modern evolution of

ISSN: 2789-1895 online
ISSN: 2958-3101 print

Shiyaf owing to the development of pharmaceutical technologies and innovations. It has been defined according to its mode of action within different body cavities. In contrast, *Shiyaf* was developed by ancient Unani scholars using the techniques and resources available in their era and primarily described on the basis of macroscopic features. However, with advancements in medical science and the shift towards microscopic and molecular level evaluation of formulations, limitations in the efficacy and acceptability of *Shiyaf* have become more apparent. This emphasizes the urgent need to revive and redesign *Shiyaf* using contemporary pharmaceutical techniques. Conventionally, *Shiyaf* was prepared manually, a process that, while effective in traditional practice, presents certain limitations such as a lack of uniformity, dosing accuracy, and reproducibility. However, in modern pharmaceutical practice, various advanced techniques such as Hot fusion methods, cold compression methods, automatic filling machines, etc., are employed in the formulation of suppositories. These methods can similarly be applied to the preparation of *Shiyaf* to ensure better precision in dosing and maintain the reliability and consistency of the formulation. Furthermore, numerous studies have demonstrated that use of appropriate bases such as Glycerogelatin, Cocoa Butter, PEGs, Witepsol, etc., in suppositories plays a pivotal role in determining drug release, bioavailability, and formulation integrity [91, 92]. Likewise, identifying and incorporating suitable bases in *Shiyaf* could enhance its therapeutic effectiveness and physicochemical stability. Moreover, by performing various quality control tests such as drug content uniformity, dissolution time, melting range test, liquefaction time, *Shiyaf* can be optimized and developed by pharmaceutically accepted guidelines. These should be followed by pre-clinical and clinical studies to evaluate its safety and efficacy in conditions where it is traditionally indicated. Such studies would not only provide evidence-based backing but also help in framing standard treatment guidelines for its use in integrative healthcare settings. Finally, efforts must be made to standardize and document the *Shiyaf* in Unani pharmacopoeias and formularies. Only through such structured efforts can this classical dosage form reclaim its relevance and utility in the contemporary world.

Conclusion: With origins tracing back to the time of Hippocrates, *Shiyaf* has been extensively acknowledged in Unani medicine owing to its therapeutic significance and practical utility. However, it has largely remained unexplored in the context of modern pharmaceutics, perhaps due to the challenges in its method of preparation and usage. Through this review, an attempt has been made to shed light on the classical concept, preparation methods, and formulations of *Shiyaf*, and to draw parallels with its modern counterpart, the suppository. The purpose of this paper, therefore, goes beyond mere documentation; it seeks to position *Shiyaf* within the framework of contemporary drug delivery systems and explore its potential for further scientific validation and development. This review thus serves as a preliminary yet significant step in the direction of inviting future research, development, and recognition of *Shiyaf* as a potent therapeutic formulation.

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Acknowledgements: The authors acknowledge the Faculty of Post Graduate Department of *Ilmul Saidla* (Unani Pharmaceutics), Ayurvedic & Unani Tibbia College and Hospital, Karol Bagh, New Delhi, for their constant guidance, encouragement, and valuable support. The authors are also grateful to their peers and colleagues for their constructive feedback and insightful academic discussions, which significantly contributed to the refinement of this review.
Author contribution: SA conceived and designed the study. SA, AS & MNS collected data. AS & MNS contributed to data analysis. SA & AIS drafted the manuscript. All authors approved the final version of the manuscript and agreed to be accountable for its contents.
Conflict of interest: The authors declare the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.
Ethical issues: The authors completely observed ethical issues, including plagiarism, informed consent, data fabrication or falsification, and double publication or submission.
Data availability statement: The raw data that support the findings of this article are available from the corresponding author upon reasonable request.
Author declarations: The authors confirm that they have followed all relevant ethical guidelines and obtained any necessary IRB and/or ethics committee approvals.