

# An International Journal of Research in AYUSH and Allied Systems

# **Review Article**

# ANTIMICROBIAL PROPERTIES OF *SHREVESTAKADI YONI DHOOPAN* FOR MANAGEMENT OF ABNORMAL VAGINAL DISCHARGE

# Aayushi Agarwal<sup>1\*</sup>, Anjali Verma<sup>2</sup>, K. K. Sharma<sup>3</sup>

\*¹PG Scholar, ²Assistant Professor, Department of Prasuti Tantra Evum Stree Roga, ³Professor and Head, Department of Panchkarma, Uttarakhand Ayurved University, Rishikul Campus, Haridwar, Uttarakhand, India.

#### Article info

#### **Article History:**

Received: 05-01-2024 Accepted: 14-02-2024 Published: 07-03-2024

#### **KEYWORDS:**

Abnormal Vaginal Discharge, Srevestakadi Yoni dhoopan, Yoni dhoopan.

# **ABSTRACT**

Ayurveda, an ancient system of medicine adopts a holistic approach, focusing on both curing diseases and enhancing the overall well-being of individuals. It emphasizes the importance of maintaining a balance between the individual (body, mind, soul, spirit) and the environment. It includes a range of pharmaceutical preparations and therapeutic techniques. However, in the contemporary era, only a limited number of these procedures are actively employed, leading to the loss of significance and recognition for numerous valuable formulations and techniques, *Dhoopan karma* being one of them. "*Dhoopana*" is a procedure involving the use of herbal, herbo-mineral, or animal-origin substances for fumigation. *Dhoopan* has been actively used as a preventive measure during pre and post-operative care and as a therapeutic procedure due to its antimicrobial, analgesic, anti-inflammatory properties. *Yoni Dhoopan* is effectively utilized in addressing diverse *Yonivyapad* conditions. Medicinal properties of *Dhoopan* drugs includes *Kashaya* and *Tikta* in *Rasa*, *Katu* in *Vipaka*, and *Laghu* and *Ruksha* in *Guna*, rendering them to be a potent *Kledashoshaka*, *Shodhaka* (detoxifier), and *Ropaka* (wound-healer). Furthermore, it exhibits *Yoni doshhara*, *Kledashoshaka*, and *Jantughana* (anti-microbial) properties.

# **INTRODUCTION**

Inspite of significant advancements in previous decades, our society still falls short in providing women with the necessary healthcare during crucial moments in their lives, especially during their reproductive years resulting in increasing gynaecological disorders among females. As a result, abnormal vaginal discharge is becoming increasingly prevalent and a frequently overlooked gynaecological issue among females. These disorders have been described under a collective heading of *Yonivyapada* in Ayurvedic classics.

In Ayurveda treatment involves three approaches: *Shaman, Shodhan, Sthanik chikitsa*. Notably, *Sthanik chikitsa* or the local therapies hold a curcial role in addressing *Yonivyapad* as they possess

# Access this article online Quick Response Code ht Pu pu At In

# https://doi.org/10.47070/ayushdhara.v11i1.1496

Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

Shamana and Shodhana properties according to their Prayojana. It includes a variety of therapeutic procedures namely Yoni dhoopan, Yoni dhavan, Yoni pichu, Yoni lepan, Yoni varti, Yoni pooran, Yoni parisheka, Agnikarma, Uttarbasti etc.

Yoni dhoopana entails the fumigation of the vulva and vagina. This practical procedure involves exposing the vulva and vagina to medicated and disinfected smoke, ensuring the application of therapeutic elements over the yoni's surface. The choice of the vagina as a route for drug delivery is favored because of its extensive surface area, significant vascularity, and high permeability, enabling effective absorption of medicated fumes or any medicinal substance applied within the vaginal cavity. This significant local therapy is highlighted for its relevance in Swasthya rakshan (preventive care) as well as Vyadhi chikitsa (disease treatment) due to its Krimighna, Kandughna, Shothahara, Vranaropaka, Kledashoshaka effect.

A diverse range of fumigation drugs are described in the *Bruhatrayi* by *Acharya Charaka, Sushruta, Vagbhata* and *Kashyap Samhita Khilsthana* in serving purposes such as prevention, disease combat, and environmental purification. Numerous research studies have been undertaken to substantiate its role in *Sutikaparicharya*, *Yoniroga* as well as the disinfection and healing of wounds.

# **AIM AND OBJECTIVES**

To analyse available literature for antimicrobial properties of *Shrevestakadi Yoni Dhoopan* for management of abnormal vaginal discharge.

#### **MATERIAL AND METHODS**

In the current review study, a comprehensive literary examination is conducted. Detailed content and references are analyzed from existing texts, with a primary focus on *Charak, Sushruta,* and *Vagbhatta.* Additionally, pertinent references are extracted from books and research articles to enhance the scope of the study.

# Methodology

Firstly, the practice of *Yoni Dhoopan* is outlined, along with its classical indications as mentioned in Ayurvedic texts. Following this, abnormal vaginal discharge is detailed, including the microorganisms implicated, with references from both Ayurvedic and modern scientific sources. Next, the properties of the selected drug, *Srevestakadi Yoni Dhoopan* are elucidated, highlighting its antimicrobial

actions supported by recent research. Additionally, evidence of *Yoni Dhoopan's* efficacy in *Prasuti Tantra evum Stree Roga* is discussed underscoring the desired antimicrobial effects of the drug according to recent studies. Finally, a comprehensive discussion is conducted, leading to a conclusion drawn from the collective findings.

#### **RESULT**

# Yoni Dhoopan

Yoni Dhoopana involves fumigating the affected area (vulva, vagina) with essential substances tailored to specific needs. This choice is influenced by factors such as the condition, in which they are applied, as well as the rapid volatility and spreadability of the drug's properties. From a therapeutic perspective, Dhoopana plays a crucial role in addressing conditions characterized by Vedana, presence of Krumi, Atisrava, Kandu, Vrana. The general properties of Dhoopa are Rooksha, Laghu, Ushna, and Vishada, making it suitable for use in conditions that exhibit opposing qualities.[1] Dhoopan is indicated in many Yoni rogas, Prasava, Sutika, Garbhnirodhak etc. Various Dhoom like Grahaghna Dhoop, Kumar Dhoop, Sri Dhoopa, Maheshwar Dhoop etc are mentioned by Acharya kashyap[2].

Table 1 presents collective references from Ayurvedic texts indicating the use of "Dhoopan Karma."

Table 1: Classical indications of *Yoni Dhoopan* in Ayurvedic classics

S.No.	Indication	Drugs
1.	Yoni kandu <sup>[3]</sup>	Haridra and Daruharidra and Brihati phala
2.	Yonisrava <sup>[4]</sup>	Sarla, Yava, Guggulu, Ghrita, Katuk-matsyaghritasaha
3.	Vranaropaka <sup>[5]</sup>	Sarshapa, Nimbapatra with Ghrita & Lavana
4.	Apra sang <sup>[6]</sup>	Bhojpatra, Kakmachi, Guggulu Katukalabu, Sarshapa, Kritvedhana, Sarpanirmoka with Katutail– Langalimoolkalka
5.	Garbha sanga <sup>[7]</sup>	Krishna sarpa – Nirmoka or Pinditaka Bhurjapatra, Kalihari, Katutumbi, Kushtha, Sarshapa and Snakemolt
6.	Vilambita prasava <sup>[8]</sup> Anagata Prasava <sup>[9]</sup>	Krishansarpanirmoka, Tagar -Bhurjapatradhoom, Shinshpasardhoom
7.	Nagodara <sup>[10]</sup>	Dhoopana drugs used in Aprapatana
8.	Sutika <sup>[11]</sup>	Kushtha, Guggulu, Agaru, Ghrita
9.	Sutika Vataj jwara <sup>[12]</sup>	Devdaru or Kushtha, Guggulu, Agru
10.	<i>Kumaragara</i> <sup>[13]</sup> (for fumigation of cloths, bed sheets)	Yava, Sarshapa, Atasi, Hingu, Guggulu, Vacha, Choraka, Vyastha, Golomi, Jatamanshi, Kplanksha, Rohini, Sarpanirmoka with Ghrita
11.	Garbhanirodak <sup>[14]</sup>	Katu-Nimbakashtha

# **Abnormal Vaginal Discharge**

Normal vaginal discharge typically appears clear or cloudy white and is usually odorless. Any alterations in color, texture, volume, or odor of the discharge can indicate a potential vaginal infection. Several factors increase

the likelihood of infection, including reduced vaginal acidity (resulting in increased pH levels), poor hygiene, tissue damage, hormonal imbalances, intra-vaginal preparations, stress, inadequate diet, and fatigue.

Infections may be attributed to various microorganisms, including bacteria, yeast, and other pathogens.

Table 2 delineates the macroscopic features of abnormal vaginal discharge attributed to different microorganisms as per the modern texts.

Table 2: Macroscopic features of Abnormal Vaginal Discharge due to various microorganisms[15]

Type of Infection	Color	Consistency	Odour
Trichomoniasis	Greenish yellow	Thin, frothy, adherent	Unpleasant
Candidiasis	Curdy white	Thick	Odorless
Bacterial Vaginosis	Grey white to green yellow white	Thin, adherent	Fishy odor
Chlamydia	Mucopurulent	Thick	-

Abnormal vaginal discharge is often accompanied by symptoms such as pain, itching, and odor, which can manifest as symptom of various Yonivyapad (Kaphaja, Acharna, Uppluta, Sannipataja etc) Jatharini and complications of gynecological disorders. The etiology being vitiation of Kapha pradhan Tridosha in association with the presence of microorganisms referred to as "Jantu" "Krimi" etc.

# Shrevestakadi Yoni Dhoopan[16]

**Contents:** Srivestaka, Sarjarasa, Sala, Devadaru, Simsipa, Khadira, Asana, Kaidarya, Yava, Bhurjapatra, Madhucchista, Ksauma, ghee.

**Indications:** The above formulation is recommended for *Dhoopan* in pathologies occurring due to vitiation of *Vatadi dosha* and having symptom of excessive discharge along with pain.

Table 3 summarizes the *Raspanchak* (composition) of *Shrevestakadi Dhoopan*, while table 4 outlines the properties and *Dosha karma* associated with *Shrevestakadi Dhoopan* as per Ayurvedic texts and recent researches.

Table 3: Raspanchaka of Shrevestakadi Dhoopan[17]

S.No	Drug	Latin Name	Ras	Guna	Virya	Vipaka
1.	Srivestaka	Pinus longifolia, Pinaceae	Madhur, Kshaya, Tikta	Snigdha	Ushna	Katu
2.	Sarjarasa (Niryas of sala)	Shorea robusta, Dipterocarpeae	Madhur	Rooksha	Sheeta	Katu
3.	Sala	Shorea robusta, Dipterocarpeae	Kshaya	Rooksha	Sheeta	Katu
4.	Devadaru	Cedrus deodara, Pinaceae	Tikta	Laghu, Snigdha	Ushna	Katu
5.	Simsipa	Dalbergia sissoo, Leguminaceae	Kshaya, Katu, Tikta	Laghu, Rooksha	Ushna	Katu
6.	Khadira	Acacia catechu, Leguminaceae	Kshaya, Tikta	Laghu, Rooksha	Sheeta	Katu
7.	Asana	Pterocarpus marsupium, Leguminaceae	Kshaya, Tikta	Laghu, Rooksha	Sheeta	Katu
8.	Kaidarya	Murraya koenigii, Rutaceae	Madhur, Kshaya, Tikta	Laghu, Rooksha	Sheeta	Katu
9.	Yava	Hordeum vulgare, Poaceae	Kashaya, Madhur	Rooksha	Sheeta	Katu
10.	Madhucchista	-	-	Snigdha	-	-
11.	Bhurjapatra	Betula utilis, Betulaceae	Kshaya	Laghu	Ushna	Katu
12.	Ghrit	-	Madhur	Snigdha	Sheeta	Madhur

Table 4: Properties and Dosha karma of Shrevestakadi Dhoopan[17]

S.No	Drug	Dosha Karma	Pharmacological Action	Properties
1.	Srivestaka	Kapha Vata Shamak	Analgesic, anti- inflammatory	Rakshoghana, Swedhar, Daurgandhyahar, Yukakanduvranapranuta
2.	Sarjarasa (Niryas of sala )	Kapha pitta shamak	Antibacterial, analgesic, wound healing	Swedhara, Vranropak, Shoolhar
3.	Sala	Kapha pitta shamak	Analgesic, antipyretic, anti- inflammatory, anti- bacterial, antimicrobial	swedhar, Vranropak, Krimighna, Yoniroghar
4.	Devadaru	Kapha vata shamak	Anti-inflammatory, analgesic, immuno- modulatory, anti-bacterial	Kandughana, Sothhar, Dushtavranashodhaka, Krimighna
5.	Simsipa	Tridosh shamak	Antimicrobial, antioxidant, anti-inflammatory, analgesic	Krimighna, Garbhapatini, Dushtavranashodhaka
6.	Khadira	Kapha pitta shamak	Anti-inflammatory, antimicrobial, antioxidant	Kandughna, Krimighna, Vranapha, Sothghna
7.	Asana	Kapha pitta shamak	Antioxidant, anti-bacterial, antifungal	Vrna krimighna
8.	Kaidarya	Kapha pitta shamak	Antioxidant, anti- inflammatory	Krimi-bhoot-vishapha
9.	Yava	Kapha pitta shamak	Antioxidant, anti-ulcerative, antifungal	Ruksha, Lekhana, Anabhishyandi
10.	Madhucchista	-	Anti-inflammatory, antimicrobial	Bhootghna, Vranropaka, Sandhankrit
11.	Bhurjapatra	Tridosh shamak	Antioxidant, anti- inflammatory, antimicrobial	Rakshoghna, Vishhar
12.	Ghrit	Tridosh Shamak	Immuno-modulatory, anti- inflammatory, anti-bacterial	Rakshoghna, rasayana

Summary of observed outcomes from various research studies conducted by Ayurvedic scholars to evaluate the efficacy of *Yoni Dhoopan Karma*, an integral aspect of treatment in *Prasuti tantra Evum Stree Roga* are tabulated in table no 5.

Table 5: Research Studies regarding Yoni dhoopana karma in different Stri Roga & Prasuti tantra[18]

S.N	Pathological Condition	Drugs For Dhoopan	Evidence Research Work	Observed Outcome
1.	Infections post vaginal delivery with Episiotomy	Vidanga, Shatapushpa, Jatamansi, Guggulu	Determining the efficacy of three Ayurvedic formulations and <i>Dhoopana</i> (medicinal fumigation) in preventing of infections post vaginal delivery with Episiotomy. <sup>[19]</sup>	<ul> <li>Effective in alleviating pain.</li> <li>Effective in wound healing without infection and complication.</li> </ul>
2.	Role in perpureal period	Kustha, Agru, Guggulu	Evaluation of <i>Dhupan Karma</i> in <i>Sutika Paricharya</i> . <sup>[20]</sup>	<ul> <li>Effectiveness observed in-</li> <li>Udara Shoola (abdominal pain).</li> <li>Kukshihras (intestinal colic).</li> <li>Yonivranashoola (pain in gynaecological conditions)</li> <li>Yonivranashotha (swelling in</li> </ul>

_		1	ATUSHDHARA, 2024;11(1):8-1					
			7110311D11711(1).0 1	gynaecological conditions)  • Yonivrana (wound in the genital area) approximation.  • Yonigata Raktasrava (vaginal bleeding)  • Vaginal pH decreased from 7.4 to 6.6.  • Vaginal temperature increased from 99.3 to 99.6.  • Average Garbhashaya hras (reduction in postpartum uterine size) was observed at 1.25cm/day.				
3.	Role in first week of puerperium (2 <sup>nd</sup> -8 <sup>th</sup> day)	Agaru, Kushtha Guggulu	Validation of effect of an Ayurvedic therapeutic procedure, <i>Dhashmool kwath</i> and <i>Dhoopan</i> Fumigation with medicinal herbs during first week of puerperium: An open clinical trial. <sup>[21]</sup>	<ul> <li>Vaginal pH decreased 7.2 to 6.5.</li> <li>Maintenance of normal involution of uterus Episiotomy wound healing</li> <li>Antimicrobial, anti-inflammatory and analgesic action.</li> </ul>				
4.	Sweta pradara	Sarala, Yava, Guggulu	A clinical study of Amalaki choorna (orally) and Saraladi Yonidhoopana in Sweta pradara w.s.r. to vaginitis.[22]	Significant Relief In -  • Yonisrava (vaginal discharge)  • Kandu (itching)  • Maithun Asahishnuta (discomfort during sexual intercourse)  • Durgandha (odor)  • Excoriation  • Mutradaha (burning sensation during urination)  • Noteworthy decrease in microorganisms, particularly Candida Albicans, and Gram-Positive Bacilli				
5.	Role in Prasava	Sarpanirmoka	Role of <i>Krishna Sarpanirmoka</i> dhoopana in prasava (2 <sup>nd</sup> stage of labour): A Comparative study. <sup>[23]</sup>	<ul> <li>Significantly better result in duration of uterine contractions and interval between uterine contractions.</li> <li>Patients delivered uneventfully without episiotomy.</li> </ul>				
L Table	l e 6 summarizes re			ns of <i>Shrevestaki Dhoopan</i> drugs.				
	Table C. Antiquinalist arise of Change table I' Discourse description							

# Table 6: Antimicrobial action of Shrevestakadi Dhoopana drugs

	Table 0. Antimici obiai action of 5m evestukuui bhoopana ui ugs									
Microorganism	Srivestaka <sup>[24]</sup>	Sarjarasa <sup>[25]</sup>	Sala <sup>[26]</sup>	Devadaru <sup>[27]</sup>	Simshipa <sup>[28]</sup>	Khadira <sup>[29]</sup>	Asana <sup>[30]</sup>	Kaidarya <sup>[31]</sup>	Yava <sup>[32]</sup>	Bhurjapatra <sup>[33]</sup>
Escherichia coli	+	+	+	+	+	-	+	+	+	+
Staphylococc us aureus	+	+	+	+	+	+	+	+	+	+
Klebsiella pneumoniae	-	-	+	-	+	+	+	-	+	+
Pseudomonas Aeruginosa	+	+	+	+	+	+	+	-	1	+
Proteus mirabilis	-	-	+	-	-	-	+	-	+	+

Aayushi Agarwal et al. Shrevestakadi Yoni Dhoopan for Management of Abnormal Vaginal Discharge

Bacillus subtilis	+	+	+	-	-	+	+	+	-	-
Bacillus cereus	-	-	+	+	+	-	-	-	-	-
Candida albicans	+	-	+	+	-	+	-	+	-	-
Aspergillis niger	-	-	-	+	-	-	-	+	-	+
Proteus vulgaris	-	-	+	-	-	-	-	-	-	-
Vibrio cholerae	-	-	+	-	-	-	-	-	-	-
Enterobacter	-	-	+	-	-	+	-	-	-	-

#### DISCUSSION

Fumigation of the vulva-vagina has demonstrated notable effectiveness in addressing various genital disorders, postpartum (*Sutika*) and comfortable childbirth (*Sukhaprasava*). It enhances the defence mechanisms of the female genital tract by promoting a healthy vaginal flora, maintenance of vaginal pH and temperature.

Dhoopana drugs, characterized by Laghu, Ruksha, Tikshna, Katupaki Vikasi, Ugragandhi and voltile properties rendering them antimicrobial, analgesic, anti-inflammatory in their effects. These drugs on heating get converted into volatile fumes facilitating its rapid distribution throughout the uterovaginal tract and enhances its therapeutic effect. These fumes enter into smallest units of tissues of genital tract due to Sooksham-srotogami nature and cause dilatation and oxidation of blood vessels and increase tissue perfusion and oxygenation. Thus, reduces inflammation, itching and eliminates infection. The antiseptic and sterilised environment of vagina is depicted bv analgesic, anti-inflammatory antimicrobial effect of Dhoopana.

Different research studies have been conducted in various institutes to prove the effect of Yonidhoopana in addressing conditions such as itching (Kandughna), Durgandha (odor), moisture imbalance (Kledashoshaka), wound healing (Vranaropaka), inflammation reduction (Shothahara), Mutradaha (burning sensation during urination), anti-parasitic pain effects (Jantughna) and alleviation (Vedanashamaka). The effects on Sutika Paricharya, including reduction in *Udara Shoola* (abdominal pain), Kukshihras (reduction in size of abdomen). Yonivranashoola (pain in gynaecological conditions), Yonivranashotha (swelling in gynaecological conditions), Yonigata Raktasrava (vaginal bleeding), vaginal pH, Yonivrana (wound in the genital area)

approximation. These effects collectively contribute to pain reduction and promote healing.

The drugs used in *Shrevestakadi Dhoopan* demonstrate antimicrobial properties against pathogens such as Escherichia coli, Staphylococcus **Pseudomonas** aureus. Klebsiella pneumoniae, aeruginosa, Proteus mirabilis, Bacillus subtilis, Bacillus cereus, Candida albicans, Aspergillus niger and Proteus vulgaris. This evidence is derived from recent research works, highlighting the effectiveness of these drugs against microorganisms associated with various gynaecological pathologies.

So Yonidhoopana exhibit significant analgesic, anti-inflammatory and anti-microbial action locally at vagina without need of antibiotics and analgesic drugs proving to be an economical and efficient procedure that is easy to administer without any harmful effects.

#### CONCLUSION

The analysis of existing research indicates that *Shrevestakadi Yoni Dhoopan* drugs exhibit robust antimicrobial properties. Certainly, further studies can be conducted to investigate the effects of *Shrevestakadi Yoni Dhoopan* in addressing abnormal vaginal discharge. These studies could provide valuable insights into the potential therapeutic benefits and efficacy of this practice in managing and alleviating conditions related to abnormal vaginal discharge.

# REFERENCES

- Dr. Kiran.A, Dr. Madhu.M, A Conceptual Study on Dhoopana Karma in Kaphaja Yoni Vyapad w.s.r to Vulvo-Vaginal Candidiasis, EPRA International Journal Of Research And Development (IJRD), Volume: 4 | Issue: 12 | December | 2019. 141-144
- 2. Hemaraja sharma, Kashyapa Samhitha, Vriddha Jeevaka, Varanasi Chawkambha Sanskritha samsthan, 2018, Kalpa stana 1/22, 3, 4, 21, 6

- 3. Kaviraj Ambika Dutta Shastri, Sushruta Samhita, Uttartantra 38/27, In Ayurveda-tatva-Sandipika by Chaukhambha Sanskrita Sansthan, Part 2, Reprint 2006, Pg.163.
- 4. Kashinath Shastri, Dr. Gorakhnatha, Charaka Samhita, Vidyotini Hindi Commentary, Chikitsa sthana 30/120, Chaukhamba Bharati Academy: Publisher, Part-2, 2007. Pg.858.
- 5. Kaviraj Ambika Dutta Shastri, Sushruta Samhita, Ayurveda-tatva-Sandipika, Sutrasthan 5/18, Chaukhambha Sanskrita Sansthan, Part 1, Reprint 2007, Pg.18.
- 6. Kashinath Shastri, Dr. Gorakhnatha, Charaka Samhita, Vidyotini Hindi Commentary, Shareersthana-Jatisutreeya 8/41, Chaukhamba Bharati Academy: Publisher, Part-1, 2005. Pg.945.
- 7. Kaviraj Ambika Dutta Shastri, Sushruta Samhita, Ayurveda-tatva-Sandipika, Sharira sthana 10/13, Chaukhambha Sanskrita Sansthan, Part 1, 2007, Pg.75.
- 8. Shastri L. Yogratnakar, Vidyotini Tika, Sutika rogadhikar, Varanasi Chaukhamba Prakashan, Reprint Edition 2013.
- 9. Kashinath Shastri, Dr.Gorakhnatha, Charaka Samhita, Vidyotini Hindi Commentary, Shareersthana: Jatisutreeya 8/38, Chaukhamba Bharati Academy: Publisher, Part-1, 2005. Pg.942.
- 10. Kaviraj Atrideva Gupta foreword by Rajvaidya Pandit Shri Nandakishor sharma Bhishagacharya Vagbhatta Ashtanga Samgraha, Shareer sthana 4/21, Chaukhamba Sanskrit Sansthan, Varanasi.
- 11. Pt. Hemaraja Sharma, Kashyap Samhita, Vidyotini Hindi Commentary by Sri Satyapala Bhisagacharya, Khilsthana: Sutika Ukramaniy adhayay 11/22, 2018. Pg.467.
- 12. Pt. Hemaraja Sharma, Kashyap Samhita, Vidyotini Hindi Commentary by Sri Satyapala Bhisagacharya, Khilsthana: Sutika Ukramaniyadhayay 11/22, 2018. Pg.467.
- 13. Kashinath Shastri, Dr. Gorakhnatha, Charaka Samhita, Vidyotini Hindi Commentary, Shareersthana: Jatisutreeya 8/61, Chaukhamba Bharati Academy: Publisher, Part-1, 2005. Pg.960.
- 14. Shastri L. Yogratnakar, Vidyotini Tika Uttardh; Yonivyapada Chikitsa 5, Varanasi Chaukhamba Prakashan, Reprint Edition 2013, page no 409.
- 15. Konar, H. D.C.Dutta Textbook of Gynaecology. 7<sup>th</sup> edition 2016, Printed by New Central Book Agency Pvt. Ltd. page no 133-135.
- 16. Kaviraj Atrideva Gupta foreword by Rajvaidya Pandit Shri Nandakishor sharma Bhishagacharya Vagbhatta Ashtanga Samgraha, Chaukhamba Sanskrit Sansthan, Varanasi, uttar tantra 30/45.

- 17. Dr. bulusu sitaram, forword by Prof K.C. Chunekar, Bhavaprakash, Chaukhamba Orientalia Varanasi page no 203, 341, 199, 343, 424, 553, 351, 537
- 18. Anita & Sujata Kadam: Effect Of Yonidhoopana and Its Antimicrobial Activity In Stri Roga & Prasuti Tantra: A Review Article. International Ayurvedic Medical Journal {online} 2020 {cited October, 2020} Available from: http://www.iamj.in/posts/images/upload/4858\_4865.pdf.
- 19. Dr.Swati Surendra Mohite, Determining the efficacy of three Ayurvedic formulations & Dhoopana (Medicinal Fumigation) in preventing of infections post vaginal delivery with Episiotomy, Bharati Vidyapeeth Deemed University, College of Ayurveda, Pune, year-2013.
- 20. Dr.Vidya Maruti Magar Dr.S.R. Gholap; January 2017, Evaluation of Dhupan Karma in Sutika Paricharya, Bharati Vidyapeeth Deemed University, College of Ayurveda, Pune.
- 21. Seema R.Gholap, N.V.Khainar; September 2017, Validation of effect of an Ayurvedic therapeutic procedure, Dhashmoolkwath & Dhoopan Fumigation with medicinal herbs during first week of puerperium: An open clinical trial, Bharati Vidyapeeth Deemed University, College of Ayurveda, Pune.
- 22. Reeti Yadav, Sucheta Kumari, Suprabha Kunjbettu; Jan 2019, A Clinical study of Amalaki choorna (orally) & Saraladi Yonidhoopana in Sweta pradara w.s.r. to vaginitis, S.D.M. Ayurvedic Hospital Udupi.
- 23. Shreyes S. Vandana S. Kulkarni, Jyothi S. Kanagali Yogitha Bali M.R. 2020, Role of Krishna Sarpanirmoka dhoopana in prasava (2nd stage of labour): A Comparative study, Shri J.G.C.H.S Ayurvedic Medical College and Hospital, Ghataprabha, Karnataka.
  - 24. Dwaipayan Sinha and P.K. Tandon, Ethnobotanical, Pharmacological and Antimicrobial Importance of Pinus roxburghii Sargent: A Review, Journal of Biological and Chemical Research, Vol. 35, No. 2: 605-622, 2018.
  - 25. Sushma Vashisht, Manish Pal Singh, Viney Chawla, In-vitro Antioxidant and Antibacterial Activity of Methanolic Extract of Shorea robusta Gaertn. F. Resin, International Journal of Pharmaceutical and Phytopharmacological Research, August 2016 | Volume 6 | Issue 4 | Page 68-71. Raphael R. Marandi, S. John Britto and Prabhat K.
    - Raphael R. Marandi, S. John Britto and Prabhat K. Soreng, Phytochemical Profiling, Antibacterial Screening and Antioxidant Properties Of The Sacred Tree (Shorea Robusta Gaertn.) Of Jharkhand, International Journal of Pharmaceutical Sciences and Research, IJPSR, 2016; Vol. 7(7): 2874-2888.

- 26. Manoj Kumar, Pawan Kumar, Narendra Kumar, Abaidya Nath Singh, Manju Lata Singh, Ajay Kumar Pandey and Anurag Singh, Antimicrobial Activity of Cedrus deodara Linn. and Hemidesmus indicus Linn. Plants, American Journal of Phytomedicine and Clinical Therapeutics, AJPCT[2][8][2014]952-956.
- 27. Sharmishtha Gangopadhyay, Dalbergia Sissoo: A Pharmacologically Essential Tropical Tree Species, Newsletter of the International Society of Tropical Foresters, 2022, page 30.
- 28. Negi, B.S., Dave, B.P. In Vitro Antimicrobial Activity of Acacia catechu and Its Phytochemical Analysis. Indian J Microbiol 50, 369–374 (2010). https://doi.org/10.1007/s12088-011-0061-1
- 29. Anshul Chawla, Jasdeep Kaur, Anil Kumar Sharma, Systemic Review: Pharmacognosy, Phytochemistry, Pharmacology and Clinical Applications of Pterocarpus marsupium Roxb., International

- Journal of Pharmaceutical and Phytopharmacological Research, 2013, 2(5): 319-327.
- 30. Arti Bochare, Shankar Aher, Dhanashri Jadhav, A Review Article On Curry Leave (Murraya Koenigii), International Journal of Creative Research Thoughts, Volume 11, Issue 1 January 2023.c912-c922.
- 31. Mohammad A. Jebor, Ali. Al-Saadi, Russul Hikmat Behjet, Mona Al-Terehi, Haider K.Zaidan, and Mohammed A.K.Al-Saadi, Characterization and antimicrobial activity of barley grain (Hordeum vulgare) extract, International Journal of Current Microbiology and Applied Sciences, Volume 2 Number 8 (2013) pp. 41-48
- 32. Saumya Singh, Shivani Yadav, Promila Sharma, Ashish Thapliyal, Betula utilis: A Potential Herbal Medicine, International Journal of Pharmaceutical & Biological Archives, 2012; 3(3):493-498.

# Cite this article as:

Aayushi Agarwal, Anjali Verma, K. K. Sharma. Antimicrobial Properties of Shrevestakadi Yoni Dhoopan for Management of Abnormal Vaginal Discharge. AYUSHDHARA, 2024;11(1):8-15.

https://doi.org/10.47070/ayushdhara.v11i1.1496

Source of support: Nil, Conflict of interest: None Declared

# \*Address for correspondence Dr. Aayushi Agarwal

PG Scholar, Department of Prasuti Tantra Evum Stree Roga, Uttarakhand Ayurved University, Rishikul Campus, Haridwar, Uttarakhand,

India. Email:

aayushi.agarwal.aayu@gmail.com

Disclaimer: AYUSHDHARA is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. AYUSHDHARA cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of AYUSHDHARA editor or editorial board members.