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# A COMPREHENSIVE REVIEW OF AYURVEDIC MANAGEMENT OF SHWETA PRADARA (LEUCORRHOEA)

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#### **ABSTRACT**

Background: Shweta Pradara, a condition characterized by an abnormal, whitish or discolored vaginal discharge, correlates with the modern clinical entity of leucorrhoea. While often not life-threatening, it significantly impairs the quality of life, causing physical discomfort, psychological distress, and affecting personal and social well-being. In conventional medicine, management is often symptomatic, focusing on antimicrobials for infections or hormonal therapy, which may lead to recurrence and side effects. Ayurveda, the ancient Indian system of medicine, offers a holistic and etiopathogenesis-based approach to managing Shweta Pradara. Objective: This review aims to systematically compile and critically analyze the classical and contemporary Ayurvedic understanding, etiology, pathogenesis, and comprehensive management strategies for Shweta Pradara. Methods: A thorough literature search was

conducted in classical Ayurvedic texts, including *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, and their commentaries, along with relevant research articles from electronic databases like PubMed, AYUSH Research Portal, and Google Scholar. **Results:** Ayurveda perceives *Shweta Pradara* primarily as a disorder of the *Artavavaha Srotas* (reproductive channels) and a manifestation of *Kapha* and *Vata dosha* vitiation, often associated with *Ama* (toxins) and *Dhatu Kshaya* (tissue depletion). The management is multifaceted, encompassing *Shodhana* (purification therapies like *Vamana* and *Virechana*),

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Shamana (palliative treatments with herbs and formulations), dietary modifications (*Pathya*), and lifestyle regimens. Key medicinal plants like *Ashoka (Saraca asoca)*, *Lodhra (Symplocos racemosa)*, *Shatavari (Asparagus racemosus)*, and *Udumbara (Ficus glomerata)* form the cornerstone of therapy due to their astringent, rejuvenative, and hormone-balancing properties. **Conclusion:** Ayurveda provides a robust, constitutional, and root-cause-focused paradigm for managing *Shweta Pradara*. Its emphasis on restoring digestive fire (Agni), purifying the channels, and strengthening the reproductive tissues offers a promising alternative or adjunct to conventional treatment, potentially reducing recurrence.

**KEYWORDS:** Shweta Pradara, Leucorrhoea, Yonivyapat, Aparisrava, Prakriti, Panchakarma.

#### INTRODUCTION

Leucorrhoea, a common gynecological complaint, is defined as a non-bloody, whitish or yellowish, often viscid vaginal discharge.<sup>[1]</sup> While a certain amount of physiological discharge is normal for lubrication and cleansing, an abnormal increase in quantity, change in consistency, color, or odor, accompanied by local irritation, is termed pathological leucorrhoea.<sup>[2]</sup> It can result from a variety of causes, including infections (bacterial vaginosis, candidiasis, trichomoniasis), hormonal imbalances, cervical erosions, foreign bodies, or systemic diseases like diabetes and anemia.<sup>[3]</sup>

In Ayurveda, this condition is described under the broad umbrella of "Yonivyapat" (disorders of the female genital tract) and more specifically as "Shweta Pradara" or "Aparisrava." The term "Shweta" means white, and "Pradara" means excessive flow, aptly describing the cardinal symptom. [4] Acharya Sushruta, in his treatise Sushruta Samhita, provides a detailed classification of Aparisrava, categorizing it based on the predominant Dosha involved, leading to Vataja, Pittaja, Kaphaja, and Sannipataja (tridoshic) types, each with distinct characteristics. [5]

The prevalence of leucorrhoea is high globally, affecting a significant proportion of women of reproductive age, leading to discomfort, embarrassment, recurrent medical consultations, and a substantial impact on sexual health and daily activities.<sup>[6]</sup> Conventional treatment often

relies on antifungals, antibiotics, or procedures like cauterization, which may provide temporary relief but frequently fail to address the underlying predisposition, leading to chronicity and recurrence.<sup>[7]</sup>

Ayurveda offers a distinct perspective, viewing *Shweta Pradara* not merely as a local infection but as a systemic disorder arising from imbalances in the *Doshas*, *Agni* (digestive fire), and the integrity of the *Dhatus* (bodily tissues), particularly *Rasa and Rakta*.<sup>[8]</sup> Therefore, the treatment strategy is comprehensive, aiming at *Nidana Parivarjana* (avoidance of causative factors), *Dosha Shodhana* (purification of vitiated humors), and *Dhatu Prasadana* (promotion of tissue health).<sup>[9]</sup> This review article endeavors to synthesize the classical knowledge and contemporary research on the Ayurvedic management of *Shweta Pradara* to provide a consolidated resource for clinicians and researchers.

#### **ETIOLOGY (NIDANA)**

According to Ayurvedic principles, no disease manifests without specific causative factors. The etiology of *Shweta Pradara* can be understood under two categories: general and specific.

# General etiological factors (sarva roga kara nidana)<sup>[10]</sup>

#### Dietary (Ahara)

• Excessive consumption of heavy, unctuous, cold, and sweet foods that aggravate *Kapha* (e.g., dairy, sugars, fried foods). Intake of incompatible foods (*Viruddha Ahara*), stale food, and fermented substances.

#### Lifestyle (Vihara)

• Lack of physical activity, excessive sleeping, especially during the day, sedentary habits, and mental stress like anxiety and grief (which can disturb *Vata*). Suppression of natural urges (*Vega Dharana*), especially of urination and defecation.

#### Temporal (Kala)

• Exposure to cold and damp weather, which is conducive to *Kapha* vitiation.

## Specific etiological factors (vishishta nidana)[11,12]

- Repeated abortions or miscarriages (*Garbhapata*).
- Traumatic injury to the genital tract (*Yoni Abhighata*).
- Coitus during the menstrual period (*Ritu Kala*).
- Excessive and unnatural coitus (*Ati Vyavaya*).
- Lack of proper hygiene during menstruation and postpartum period (*Sutika Kala*).
- Conception too soon after a previous delivery.

#### PATHOGENESIS (SAMPRAPTI)

The pathogenesis of *Shweta Pradara* is a sequential process involving the vitiation of *Doshas*, impairment of *Agni*, and the involvement of specific bodily channels.

**Provocation of** *Doshas* (*Sanchaya* and *Prakopa*): The before mentioned etiological factors lead to the accumulation and subsequent aggravation of *Doshas*, primarily **Kapha** and secondarily *Vata*. *Kapha*, with its *Snigdha* (unctuous), *Guru* (heavy), and *Picchila* (slimy) properties, is the primary *Dosha* responsible for the excessive, whitish, sticky discharge. *Vata* vitiation can lead to pain, irregularity, and a frothy discharge. Pitta involvement can cause yellowish or greenish discoloration and a burning sensation. [5,13]

**Spread and Localization** (*Prasara* and *Sthana Samshraya*): The vitiated *Doshas* leave their sites and circulate through the body. Due to the similarity in properties and the anatomical connection, they localize in the *Artavavaha Srotas* (channels carrying menstrual fluid and reproductive tissue) and the *Yoni* (vagina and uterus).<sup>[8]</sup>

**Manifestation** (*Vyakti*): The lodged *Doshas* vitiate the local tissues and the normal *Kapha* present in the genital tract (a physiological entity for lubrication), leading to its pathological increase and expulsion as *Shweta Pradara*. Acharya Charaka also implies the involvement of *Ama* (digestive toxins) in this process, which can clog the channels and complicate the condition.<sup>[4,14]</sup> The condition is often associated with *Dhatu Kshaya* (depletion of tissues), particularly *Rasa Dhatu* (plasma), making the body weak and susceptible.<sup>[15]</sup>

#### The Samprapti Ghataka (components of pathogenesis) can be summarized as

- Dosha: Predominantly Kapha, then Vata and Pitta.
- Dushya: Rasa, Rakta, Artava, and the walls of Artavavaha Srotas.
- Srotas: Mainly Artavavaha Srotas, also Rasavaha and Raktavaha.
- Srotodushti Prakara: Atipravritti (excessive flow) and Sanga (obstruction).

- Agni: Mandagni (low digestive fire) leading to Ama formation.
- *Udbhava Sthana: Amashaya* (primary site of *Kapha*).
- Adhisthana: Yoni and Garbhashaya (vagina and uterus).

#### Clinical Features (*Rupa*)

The clinical presentation varies based on the predominant *Dosha*. [16,17]

- *Kaphaja Shweta Pradara*: Discharge is profuse, thick, white, slimy, sticky, and cold, resembling *kanji* (rice gruel) or *taila* (oil). It may be associated with itching, heaviness in the abdomen, and generalized lethargy.
- *Vataja Shweta Pradara*: Discharge is scanty, frothy, rough, dry, and blackish or reddishbrown. It is often accompanied by lower abdominal pain, low backache, body aches, and a feeling of emptiness or dryness in the vagina.
- *Pittaja Shweta Pradara*: Discharge is yellowish, greenish, or blueish, hot, and foul-smelling, with a burning sensation in the genital region. There may be associated fever, thirst, and inflammation.
- *Sannipataja Shweta Pradara*: This is a mixed type, presenting with a combination of symptoms from all three Doshas. The discharge may be of mixed colors and consistency.

#### PRINCIPLES OF AYURVEDIC MANAGEMENT (CHIKITSA SUTRA)

The primary goal of Ayurvedic treatment is to break the pathogenesis (*Samprapti Vighatana*) and restore equilibrium. The management is tailored to the individual's *Prakriti* (constitution), *Vikriti* (pathological state), *Bala* (strength), and the nature of the disease. The general principles include: [9,18]

*Nidana Parivarjana* (Avoidance of Causative Factors): This is the first and most crucial step. Without this, any therapeutic intervention will yield only temporary results. Patients are counseled to avoid the specific dietary and lifestyle factors that precipitated the condition.

**Shodhana Chikitsa** (**Purification Therapy**): For chronic, severe, or recurrent cases where there is significant *Dosha* vitiation, *Panchakarma* (five detoxification procedures) is indicated. This provides deep cleansing and is highly effective.

• *Vamana* (Therapeutic Emesis): Primarily for *Kapha*-dominated conditions. It expels excess *Kapha* and *Ama* from the stomach and respiratory tract, which are the root sources. [19]

- *Virechana* (Therapeutic Purgation): Useful when *Pitta* is involved or when toxins have reached the intestines. It cleanses the *Rakta* and *Pitta*-related channels.<sup>[20]</sup>
- *Basti* (Medicated Enema): Considered the prime treatment for *Vata* disorders. Since *Vata* is often a secondary *Dosha* in *Shweta Pradara* and is located in the pelvic region, Basti is extremely beneficial. Both *Niruha* (decoction enema) and *Anuvasana* (oil enema) are used to pacify Vata, cleanse the colon (the seat of *Vata*), and strengthen the reproductive system.<sup>[21]</sup>
- *Uttara Basti*, a specialized procedure where medicated oil or decoction is administered through the urethral or vaginal route, is considered the specific and most direct treatment for *Yonivyapat*. It helps cleanse, nourish, and strengthen the uterine and vaginal tissues locally.<sup>[22]</sup>

*Shamana Chikitsa* (Palliative Therapy): For mild to moderate cases or as a follow-up to *Shodhana*, internal medications in the form of *Kashaya* (decoctions), *Churna* (powders), Vati (tablets), and *Asava-Arishta* (fermented formulations) are used to pacify the vitiated *Doshas* without aggressive purification.

- *Deepana-Pachana* (Appetite and Digestive Enhancers): To correct *Mandagni* and eliminate *Ama*. Formulas like *Chitrakadi Vati or Panchakola Churna* may be used.
- *Stambhana* (Astringent Therapy): To control the excessive flow. Herbs with *Kashaya* (astringent) *Rasa* are employed.
- *Brimhana* (Nourishing Therapy): To counteract *Dhatu Kshaya* and provide strength. Rejuvenative herbs are used.
- *Pathya-Apathya* (Dietary and Lifestyle Regimen): A supportive diet and lifestyle are integral to the treatment and prevention of recurrence.

#### DETAILED REVIEW OF AYURVEDIC INTERVENTIONS

### Key Medicinal Plants (Dravyas) and Their Pharmacological Rationale

A vast repertoire of medicinal plants is used in managing *Shweta Pradara*. Their actions are multifaceted, including *Stambhana* (astringent), *Sangrahi* (absorbent), *Shothahara* (anti-inflammatory), *Vedanasthapana* (analgesic), and *Rasayana* (rejuvenative).

Ashoka (Saraca asoca): Arguably the most important herb for female reproductive health. [23]

- **Action:** Its *Kashaya Rasa* helps reduce excessive discharge. It has a specific action on the endometrium and uterine muscles, making it a uterine tonic. It possesses oxytocic and estrogen-modulating properties.
- Use: Decoction of the bark is the most common preparation. It is a key ingredient in formulations like *Ashokarishta* and *Ashoka Ghrita*.

#### Lodhra (Symplocos racemosa): A potent astringent.

- Action: Its strong Kashaya Rasa helps in contracting the tissues and reducing secretions.
   It is beneficial in cervical erosions and endometritis, which are common causes of leucorrhoea.<sup>[24]</sup>
- Use: Often combined with *Ashoka*. A classic combination is *Lodhra Churna* taken with honey or its decoction for vaginal wash.

#### Shatavari (Asparagus racemosus): A renowned Rasayana (rejuvenator) for females.

- **Action:** It is *Balya* (strengthening), *Brimhana* (nourishing), and *Vata-Pitta Shamaka*. It helps build the *Rasa* and *Rakta Dhatu*, addressing the underlying tissue depletion. It has phytoestrogenic properties that help regulate hormonal balance. [25]
- Use: Powder with milk or as part of formulations like *Shatavari Ghrita*.

#### Udumbara (Ficus glomerata)

- **Action:** The bark and fruit are highly astringent and useful in checking all types of *Pradara*. It is specifically indicated in menorrhagia and leucorrhoea. [26]
- Use: Decoction of the bark for drinking or douching.

#### Chandana (Santalum album) and Usheera (Vetiveria zizanioides)

• **Action:** These cooling herbs are particularly useful in Pittaja type Shweta Pradara, where there is burning sensation and inflammation. They provide a soothing effect. [27]

#### Daruharidra (Berberis aristata)

- **Action:** Possesses antimicrobial, anti-inflammatory, and uterine tonic properties. It is effective in infectious leucorrhoea. [28]
- Use: Decoction for drinking or as a local wash.

#### **Common Classical Formulations (Yogas)**

Several classical polyherbal formulations have stood the test of time for their efficacy in *Shweta Pradara*.

- *Ashokarishta*: A fermented liquid preparation primarily containing *Ashoka* bark. It is the most widely prescribed Arishta for menstrual disorders and leucorrhoea. It acts as a uterine tonic and regulates the menstrual cycle. [29]
- Pushyanuga Churna: A complex powder formulation containing ingredients like Patha,
   Lodhra, Amalaki, and Bilva. It is considered a specific remedy for all types of Pradara
   and other Yonivyapat. Its name translates to "that which nourishes the reproductive
   system."<sup>[30]</sup>
- *Chandanasava*: A fermented preparation with Sandalwood as the main ingredient. It is particularly indicated in Pittaja conditions with burning sensation.<sup>[31]</sup>
- *Pradarantaka Lauha/Pradarari Lauha*: Herbo-mineral preparations containing *Lauha Bhasma* (iron calx) along with herbs like *Ashoka, Lodhra*, and *Nagakeshara*. These are used in chronic, debilitating cases associated with anemia. [32]
- *Phala Ghrita/Garbhapala Rasa*: Medicated ghee or herbo-mineral preparations used to strengthen the uterus and support overall reproductive health.

#### Local Therapies (Sthanika Chikitsa)

- *Pichu Dharana:* A cotton or gauze tampon soaked in medicated oils like *Jatyadi Taila*, *Chandanadi Taila*, or *Panchavalkala Taila* is placed in the vagina to reduce inflammation, combat infection, and promote healing.<sup>[33]</sup>
- Parisheka (Medicated Fomentation/Douche): Warm decoctions of herbs with astringent and antiseptic properties are used for local washing. Common decoctions used are Panchavalkala Kwatha (bark of five trees), Triphala Kwatha, or a simple Lodhra Kwatha.<sup>[34]</sup>
- Vaginal Suppositories (*Varti*): Solid suppositories made from a paste of herbs like *Lodhra*, *Daruharidra*, and *Rasanjana* are inserted into the vagina for a localized effect.

# Pathya (Wholesome) and Apathya (Unwholesome) Regimen Pathya (To be followed)<sup>[35]</sup>

• **Diet:** Old rice, barley, green gram soup, pointed gourd (Parval), bitter vegetables like bitter gourd, pomegranate, buttermilk, and a moderate amount of ghee.

 Lifestyle: Regular exercise, maintaining personal hygiene, using clean and dry cotton undergarments, practicing stress-management techniques like yoga and meditation, and ensuring adequate rest.

## Apathya (To be avoided)<sup>[36]</sup>

- **Diet:** Excessive sweets, curd, fermented foods, junk food, cold drinks, heavy-to-digest foods, and incompatible food combinations.
- Lifestyle: Sedentary habits, excessive sleep, especially during the day, suppression of natural urges, mental stress, and excessive sexual indulgence.

#### **DISCUSSION AND CRITICAL ANALYSIS**

The Ayurvedic approach to *Shweta Pradara* is remarkably holistic. Unlike the often localized and symptomatic approach of conventional medicine, Ayurveda addresses the systemic imbalances that create a favorable environment for the disease. The emphasis on *Agni* and *Ama* underscores the importance of digestion and metabolism in gynecological health, a connection often overlooked in modern practice.

The rationale behind using herbs like *Ashoka* and *Lodhra* is supported by modern phytochemistry. *Ashoka* bark contains tannins, glycosides, and flavonoids, which contribute to its uterine tonic, oxytocic, and anti-inflammatory effects. [37] *Lodhra* is rich in tannins and symplocos, explaining its potent astringent and antimicrobial properties. [38] The use of Shatavari for its adaptogenic and phytoestrogenic effects provides a natural means of hormonal regulation. [25]

The strength of Ayurvedic management lies in its personalized approach. Treatment is not "one-size-fits-all" but is customized based on the *Doshic* presentation (*Kaphaja*, *Vataja*, etc.). The integration of purification therapies (*Panchakarma*) offers a powerful tool for managing chronic and recurrent cases by removing the deep-seated toxins.

However, there are challenges and areas for future research. Many classical formulations and procedures lack standardization and validation through large-scale, randomized controlled trials (RCTs). The herbo-mineral formulations, while effective, require strict quality control to ensure safety. More research is needed to establish the exact mechanisms of action, optimal dosages, and long-term safety profiles of these interventions. Integrating Ayurvedic

diagnostics like *Prakriti* assessment with modern gynecological investigations could lead to a more refined and effective integrative treatment model.

#### CONCLUSION

Shweta Pradara (Leucorrhoea), though not a fatal condition, is a significant health concern affecting the physical, mental, and social well-being of women. Ayurveda provides a profound and comprehensive framework for its understanding and management. By focusing on the root causes—imbalanced Doshas, impaired Agni, and weakened Dhatus—Ayurvedic interventions, including dietary and lifestyle modifications, herbal medicines, and Panchakarma, offer a holistic solution that aims not just for symptomatic relief but for sustainable health and prevention of recurrence. The rich repository of medicinal plants and time-tested formulations holds immense potential. To fully integrate this ancient wisdom into mainstream healthcare, a concerted effort towards rigorous scientific validation through well-designed clinical and pharmacological studies is imperative. Until then, the centuries-old success of Ayurveda in managing this common ailment continues to offer relief and hope to millions of women.

#### **REFERENCES**

- 1. James DK, Steer PJ, Weiner CP, Gonik B, eds. High Risk Pregnancy: Management Options. 4th ed. Elsevier Saunders; 2010.
- 2. Sobel JD. Vulvovaginitis. In: Goldman's Cecil Medicine. 24th ed. Elsevier Saunders; 2012; 1652-1655.
- 3. Eckert LO, Lentz GM. Infections of the lower genital tract. In: Comprehensive Gynecology. 6th ed. Elsevier Mosby, 2012; 569-602.
- Sharma RK, Dash B, trans. Agnivesa's Charaka Samhita: Text with English Translation & Critical Exposition. Vol. 2 (Chikitsa Sthana, Chapter 30). Chowkhamba Sanskrit Series Office, 2014.
- 5. Murthy KRS, trans. Sushruta Samhita: Text with English Translation. Vol. 1 (Nidana Sthana, Chapter 1). Chaukhamba Orientalia; 2012.
- 6. Patel V, Pednekar S, Weiss H, et al. Why do women complain of vaginal discharge? A population survey of infectious and psychosocial risk factors in a South Asian community. Int J Epidemiol., 2005; 34(4): 853-862.
- 7. Donders GG. Diagnosis and management of bacterial vaginosis and other types of abnormal vaginal bacterial flora: a review. Obstet Gynecol Surv., 2010; 65(7): 462-473.

- 8. Murthy KRS, trans. Astanga Hridaya of Vagbhata: Text with English Translation. (Sutra Sthana, Chapter 1). Chowkhamba Krishnadas Academy, 2016.
- 9. Tripathi B, ed. Astanga Hrdayam of Vagbhata. (Chikitsa Sthana, Chapter 21). Chaukhambha Sanskrit Pratishthan, 2009.
- 10. Sharma PV, trans. Sushruta Samhita. Vol. 1 (Sutra Sthana, Chapter 21). Chaukhambha Visvabharati, 2013.
- 11. Murthy KRS, trans. Sushruta Samhita. Vol. 1 (Chikitsa Sthana, Chapter 38). Chowkhamba Orientalia, 2012.
- 12. Srikantha Murthy KR, trans. Ashtanga Sangraha of Vagbhata. (Chikitsa Sthana, Chapter 31). Chaukhambha Orientalia, 2016.
- 13. Paradkar HS, ed. Madhava Nidana of Madhavakara. (Chapter 62). Chaukhambha Orientalia, 2010.
- 14. Sharma RK, Dash B, trans. Agnivesa's Charaka Samhita. Vol. 2 (Chikitsa Sthana, Chapter 15). Chowkhamba Sanskrit Series Office, 2014.
- 15. Srikantha Murthy KR, trans. Sharngadhara Samhita. (Purva Khanda, Chapter 6). Chaukhambha Orientalia, 2017.
- 16. Murthy KRS, trans. Sushruta Samhita. Vol. 1 (Nidana Sthana, Chapter 1). Chowkhamba Orientalia, 2012. (Detailed description of Rupa).
- 17. Srikantha Murthy KR, trans. Bhavaprakasha of Bhavamishra. (Madhyama Khanda, Chapter 61). Chaukhambha Krishnadas Academy; 2015.
- 18. Sharma RK, Dash B, trans. Agnivesa's Charaka Samhita. Vol. 1 (Sutra Sthana, Chapter 16). Chowkhamba Sanskrit Series Office; 2014.
- 19. Ibid., Vol. 2 (Siddhi Sthana, Chapter 1).
- 20. Ibid., Vol. 2 (Siddhi Sthana, Chapter 2).
- 21. Ibid., Vol. 2 (Siddhi Sthana, Chapter 3-12).
- 22. Murthy KRS, trans. Sushruta Samhita. Vol. 1 (Chikitsa Sthana, Chapter 38). Chowkhamba Orientalia; 2012.
- 23. Kumar S, Sharma A, Madhu. Saraca asoca (Ashoka): A Review. J Chem Pharm Res., 2010; 2(1): 78-84.
- 24. Singh H, Bhargava S. A review on pharmacological properties of Symplocos racemosa Roxb. Pharmacognosy Reviews, 2011; 5(10): 142-146.
- 25. Goyal RK, Singh J, Harbans Lal. Asparagus racemosus--an update. Indian J Med. Sci., 2003; 57(9): 408-414.

- 26. Jaiswal Y, Naik V, Ganapaty S. A review on phytoconstituents and biological activities of Ficus species. Int J Pharm Sci. Res., 2014; 5(8): 3159-3170.
- 27. Kaur A, Singh R, Sharma M, et al. A comprehensive review on ethnobotanical, phytochemical and pharmacological aspects of Vetiveria zizanioides (L.) Nash. Pharmacognosy Journal., 2015; 7(5): 270-277.
- 28. Potdar D, Hirwani RR, Dhulap S. Phyto-chemical and pharmacological applications of Berberis aristata. Fitoterapia., 2012; 83(5): 817-830.
- 29. The Ayurvedic Pharmacopoeia of India. Part II (Formulations), Vol. I. First Edition. Government of India, Ministry of Health and Family Welfare, Department of AYUSH, 2007.
- 30. Ibid.
- 31. Ibid.
- 32. Ibid.
- 33. Murthy KRS, trans. Sushruta Samhita. Vol. 1 (Chikitsa Sthana, Chapter 38). Chowkhamba Orientalia, 2012.
- 34. Ibid.
- 35. Sharma RK, Dash B, trans. Agnivesa's Charaka Samhita. Vol. 2 (Chikitsa Sthana, Chapter 30). Chaukhamba Sanskrit Series Office, 2014.
- 36. Ibid.
- 37. Verma N, Jha KK, Singh A, et al. A Comprehensive Review on Saraca asoca (Roxb.) Wilde: An Ayurvedic Medicinal Plant. Journal of Drug Delivery and Therapeutics., 2021; 11(4-S): 174-180.
- 38. Baghel SS, Sastry KN. Phytochemical and Pharmacological Review of Symplocos racemosa. International Journal of Pharmaceutical Sciences and Research, 2013; 4(5): 1623-1629.