



SYSTEMATIC REVIEW ON EFFICACY OF VARIOUS *PRATISARNEEYA KSHARA* APPLICATION IN AYURVEDA FOR THE MANAGEMENT OF HEMORRHOIDS W.S.R. TO SIZE REDUCTION OF PILE MASS

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Abstract:

Background: "*Mandagni*, the prime etiopathogenic factor of *Arshas*, leads to constipation, initiating the development of *Arshas* through prolonged contact of accumulated Mala or excretory material with *Gudavali*. Among the available treatment modalities, *Kshara karma* stands out for its convenience, easy adaptability, cost-effectiveness, and curative results. Within this para-surgical approach, various forms of external *Kshara* application, such as *Ksharasutra* Ligation (KSL) and *Pratisarneeeya kshar*, are employed to treat *Arsha*. While *Ksharasutra ligation* is a surgical procedure, *Pratisarneeeya kshar* involves local application and exhibits effectiveness with a straightforward procedure. Numerous studies on *Pratisarneeeya kshar* have been conducted. **Objectives:** This study aims to investigate the impact of various types of *Pratisarneeeya kshara* on Haemorrhoids. **Methods and Materials:** The materials were gathered from classical Ayurvedic literature, various magazines, and research journals. **Results:** *Pratisaraneeya Kshara* application demonstrates high efficacy in reducing the size of pile mass. **Conclusion:** Despite recent advancements, these invented techniques exhibit certain limitations and have not been proven entirely free from post-operative complications. This underscores the need for a new and improved treatment that is devoid of complications, ensures a faster cure, and proves economically superior.

Keywords: *Abhyantara Arsha*, Internal hemorrhoid, *Pratisaraneeya Kshara*, *Kshara Karma*

INTRODUCTION:

Ayurveda, an ancient system of medicine, serves as a beacon for an ideal way of living, promising a disease-free, happy, and long life. The era of *Sushruta*, particularly renowned for its golden age in Ayurvedic surgery, laid the foundation for various medical practices. Proctology stands as a domain within Ayurveda that holds immense potential for further exploration and research ^[1]. The estimated prevalence of hemorrhoids among the Indian general population is approximately 5%^[2]. In our contemporary era marked by fast-paced lifestyles, irregular food habits, changing dietary patterns, sedentary living, and heightened mental stress, the digestive system often succumbs to disturbances, leading to various diseases. Among these, Ano-rectal disorders, particularly hemorrhoids or piles, have become increasingly prevalent. Modern occupations, characterized by prolonged sitting, contribute significantly to the rising incidence of this condition, affecting individuals such as drivers, bank managers, tailors, shopkeepers, and others.

Acknowledged as one of the eight *Mahagadhas* by Acharya Sushruta, *Arsha* holds a significant position in Ayurvedic classifications^[3]. *Mandagni*, a prime etiopathogenesis factor, leading to

constipation and prolonged contact of accumulated excretory material with *Gudavali*, is instrumental in the development of *Arsha*.

Acharya Sushruta's classical texts delineate four principal therapeutic measures for *Arsha* management: *Bhesaja Chikitsa* (Medical treatment), *Kshara karma* (Caustic therapy), *Agnikarma* (Thermal cautery), and *Shastra karma* (Surgery) ^[4]. These measures, presented in a specific order, prioritize simpler and minimally invasive methods, ensuring effectiveness with minimal complications and minimal disruption to the patient's routine. Contemporary medical modalities, such as sclerotherapy, rubber band ligation, anal dilatation, infrared photo-coagulation, cryosurgery, and haemorrhoidectomy, though widely accepted, exhibit high recurrence rates ^[5]. In this context, *Kshara Karma* emerges as a para-surgical modality for piles management. However, recent innovations in these techniques have encountered limitations and post-operative complications, highlighting the need for a new and improved treatment approach that is not only devoid of complications but also offers a quicker cure and proves economically advantageous.

As we navigate the evolving landscape of medical interventions, this introduction sets the stage for exploring a promising avenue in the treatment of hemorrhoids, emphasizing the importance of efficacy, minimal invasiveness, and economic viability.

AIM AND OBJECTIVES:

To study the details regarding Hemorrhoids.

To study the effect of various types of *Pratisarneeeya kshara* on Haemorrhoid

MATERIALS AND METHODS:

The materials for this study were sourced from classical Ayurvedic literature.

Data were also gathered from various magazines and research journals. After studying the details.

Search Methodology:

The articles are searched from 2001 to 2021 in Google scholar using a strategy designed to optimize the retrieval of CT's , dissertations and case reports. The Search terms used were as follows *Pratisarneeeya kshara* on Hemorrhoid, *kshara* therapy in hemorrhoid, *Pratisarneeeya kshara* in *Arsha* etc.

OBSERVATION AND RESULTS:

Table 1: Published articles on the use of *Pratisaraneeya Kshar* and their effect

Sr. No.	Name of research title	Author name	Name of <i>Kshara</i>	Reduction in size of Pile mass
1 ^[6]	Clinical study of <i>Kutaja</i> and <i>Palasha Kshara</i> in the management of <i>Arsha</i>	T. S. Dudhamal, S. K. Gupta, Chaturbhuja Bhuyan, Kulwant Singh	<i>Kutaja Kshara</i>	80%
2 ^[7]	Efficacy of <i>Kshara Karma</i> (Caustic therapy) in Primary and Secondary Third Degree <i>Arshas</i> (Haemorrhoids) - A Case Report	Rajasree Gopalakrishnan, Ajith Kumar Raveendrakurup.	<i>Apamarga Kshara</i>	70%
3 ^[8]	Comparative clinical study on the effect of <i>Saptacchada Pratisarneeeya Kshara</i> and <i>Apamarga Pratisarneeeya Kshara</i> in the management of <i>Arshas</i> (Internal Haemorrhoids)	Swarup Majumder, N. B. Mashetti	<i>Apamarga kshar</i>	100%
4 ^[9]	Study of <i>Snuhi Pratisaraneeya kshara</i> for the management of <i>abhyantara</i>	Sharad Shrirang Katkade & Jayant	<i>Snuhi Kshara</i>	100%

	<i>arsha.</i>	Kulkarni		
5 ^[10]	A clinical study on the efficacy of <i>Vasa Pratisarneeya teekshna kshara</i> in the management of abhayantara <i>arsha</i> /haemorrhoid	Himadri Mudgal, P. Hemantha Kumar	<i>Vasa Teekshna Kshara</i>	89%
6 ^[11]	Comparative study of <i>Arka Kshara</i> and <i>Apamarga Kshara Pratisaran</i> in the treatment of <i>arsha</i> – a randomized controlled trial	Yogesh Badwe and Kiran V. Maindale	<i>Arka Kshara</i>	86.7%
7 ^[12]	Evaluation of effects of <i>Yavakshar</i> ointment on abhyantar <i>arsha</i> (internal piles)	Ukhalkar V. P.	<i>Yavakshar Ointment</i>	95%
8 ^[13]	Comparative clinical study on the effect of <i>Saptacchada Pratisarneeya Kshara</i> and <i>Apamarga Pratisarneeya Kshara</i> in the management of <i>Arshas</i> (Internal Haemorrhoids)	Swarup Majumder, N. B. Mashetti	<i>Saptacchada Kshar</i>	100%
9 ^[14]	Efficacy of <i>Kshar</i> Application in the Management of Internal Haemorrhoids -A Pilot Study	Bijendra Shah, T S Dudhmal , Shvmangal prasad	<i>Teekshna Apamarga Kshar</i>	69.7%
10 ^[15]	A Study on Efficacy of <i>Karaveera Pratisarniya Kshar Karma</i> in <i>Arsha</i> W.S.R. to internal Haemorrhoids	Kailash Yala	<i>Karveer Kshara</i>	98%
11 ^[16]	A study on efficacy of <i>Vibhitaki kshar pratisarana karma</i> in <i>Arsha</i> w.s.r. to internal Haemorrhoid	Kiran Kanchan Rbams	<i>Vibhitaki Kshar</i>	92%
12 ^[17]	A study on the efficacy of <i>Karanja Pratisarneeya Kshara</i> in the Management of <i>Arsha</i> w.s.r. to internal Haemorrhoids	Ashwini Marathe, Shivalingappa J. Arakeri	<i>Karanja Pratisarneeya kshara</i>	100%
13 ^[18]	A conceptual study on the effect of <i>Tilwaka Prathisaraneeya Kshara</i> in	Surabhi Chandra P, Sridhar Rao SM,	<i>Tilwaka Kshar</i>	94%

	Internal Haemorrhoids	Vasudha A		
14 ^[19]	A Clinical Efficacy of <i>Kadali Pratisaraneeya kshara</i> in the management of <i>Abhyantara arsha</i> (Internal Haemorrhoids)	Hardik Variya	<i>Kadali Kshara</i>	50%
15 ^[20]	A Comparative Clinical study on <i>Aragvadaadi Pratisaraneeya Kshar</i> and IRC in the management of <i>abhyantara arsha</i> w.s.r. to I and II internal Haemorrhoid	Padmendra Panchori, Hemantha Kumar, B. Swapna	<i>Aragvadaadi Pratisaraneeya Kshar</i>	91.25%
16 ^[21]	Clinico- Comparative study of <i>Apamarga kshar</i> and <i>Yava kshara</i> in the management of <i>Arsha</i> w.s.r. to II- and III-degree Haemorrhoids	Mutteppa Patil	<i>Yava Kshara</i>	94%
17 ^[22]	Clinical study of <i>Kutaja</i> and <i>Palasha Kshara</i> in the management of <i>arsha</i> .	T. S. Dudhamal, S. K. Gupta, Chaturbhuja Bhuyan, Kulwant Singh	<i>Palash Kshara</i>	83%
18 ^[23]	Clinical Evaluation of <i>Apamarga Pratisarneeeya(teekshna) kshara</i> (Local Application) <i>Haritaki Churna</i> in the management of <i>Arsha</i> (haemorrhoids)	LD Barik, SK Debnath, DS Sahu ,J Harzra	<i>Apamarga Pratisarneeeya kshar with Haritaki churna</i>	100%

Table No. 2: Duration required for complete reduction of pile mass and Complication during procedure

Sr. No.	Name of <i>Kshara</i>	Duration in days	Complication During Procedure
1 ^[6]	<i>Kutaja Kshara</i>	14 days	Burning sensation - manage with <i>takra</i> watery discharge and slight oozing of blood
2 ^[7]	<i>Apamarga Kshara</i>	21 days	Blackish - brown discharge for 3-7 days development of scar
3 ^[9]	<i>Snuhi Kshara</i>	30 days	Burning pain treated with <i>yashtimadhutail matra basti</i>

4 ^[10]	<i>Vasa Teekshna Kshara</i>	30 days	No complications
5 ^[11]	<i>Arka Kshara</i>	14 days	Burning pain, Inflammatory changes at site
6 ^[12]	<i>Yavakshar Ointment</i>	24 days	Fibrotic changes (blackish in color) at site of hemorrhoid
7 ^[13]	<i>Saptacchada Kshar</i>	21 days	No complications
8 ^[14]	<i>Teekshna Apamarga Kshar</i>	21 days	No Complication
9 ^[15]	<i>Karveer Kshara</i>	21 Days	No Complication
10 ^[16]	<i>Vibhitaki Kshar</i>	21 Days	No Complication
11 ^[19]	<i>Kadali Kshara</i>	30 days	No complication
12 ^[20]	<i>Aragvadaadi Pratisarneeya Kshar</i>	30 days	Burning sensation and Sphincter spasm , treated with <i>Madhuyashti taila</i>
13 ^[21]	<i>Yava Kshara</i>	24 days	Blackish color at site of hemorrhoid
14 ^[22]	<i>Palash Kshara</i>	14 days	Burning pain treated with <i>takra</i> , watery discharge and slight oozing of blood
15 ^[23]	<i>Apamarga Pratisarneeya kshar with Haritaki churna</i>	21 days	No complications

DISCUSSION:

This comprehensive review delves into the outcomes of 18 clinical trials investigating the efficacy of *Pratisarniya Kshar* in the treatment of *Arsha* (Hemorrhoids), revealing a consistent trend toward a significant reduction in the size of pile mass. In alignment with Ayurvedic principles, *Arsha* is classified as a *Tridoshaja Vyadhi*, with *Raktaja Arsha* standing out due to its distinctive bleeding tendencies reminiscent of *Pittaja Arsha*. The treatment landscape for hemorrhoids, be it medical, surgical, or para-surgical, aligns with the four treatment principles outlined by Sushruta.

"Tatra kṣaraṇāt kṣaṇanādvā kṣārah"

Su.su.11/4

It got its name "*kshar*" as it brings about the disintegration and subsequent shedding of vitiated tissues, tormenting them until they are compelled to fall off^[24].

"**Kṣaraṇād duṣṭatvaṇmāṃsādichālanāt, śātanādityarthaḥ; anye tu kṣaraṇāddoṣāṇām chālanāt**(dalhan commentary)

As per Dalhanacharya, *kshar* induces the breakdown of decayed and unhealthy tissues within the body, eliminating imbalances in doshas and prompting the shedding of the skin or tissues. Acharya Charak has explicitly referred to the term

"*Kshar tantara vid*" for practitioners exclusively engaged in the specialized technique of *Kshar karma*. When administered imprudently, *Kshar* can yield harmful effects and even death. However, when skilfully employed it heals even the most formidable diseases^[25].

Mode of Action of *Kshara*: *Pratisaraneeya Kshar*, coagulates proteins within the hemorrhoidal plexus, initiating a cascade of healing actions. As it cauterizes the pile mass, it disintegrates haemoglobin, resulting in a distinctive blackish-brown discharge.

It reduces the size of the pile mass, inducing necrosis and obliteration of hemorrhoidal radicles, leading to the natural sloughing out of necrosed tissue. Subsequently, fibrosis and scar formation ensue, accompanied by the obliteration of hemorrhoidal veins. Culminating in complete wound healing^[26].

Arka Kshara, *Apamarga Kshara*, and *Kutaja Kshara* have demonstrated significant efficacy in reducing the size of pile masses, thus warranting a closer examination of their mode of action. Highlighting their respective mechanisms can provide valuable insights into their effectiveness.

Apamarga Kshara possesses the property of *Tridoshaghna*, as described by Sushruta, indicating its ability to pacify the three *doshas* and balance the physiological

elements in the body. Additionally, its *Ushna Guna* aids in pacifying the *Vata dosha*, thereby potentially reducing the pain associated with piles. Actions such as *Chedana* (excision), *Bhedana* (incision), and *Lekhana* (scrapping) may be exerted by *Apamarga Kshara*. Moreover, its alkaline nature may lead to cauterizing effects on hemorrhoidal plexuses, resulting in fibrosis and necrosis of the mucosa, which could lead to the contraction of anal cushions and the sloughing out of hemorrhoids^[11].

Arka Kshara harmonizes all three doshas (*Vata*, *Pitta*, and *Kapha*), addressing the underlying imbalances contributing to pile formation. Its *Ushna Guna* alleviates pain associated with piles by pacifying the *Vata dosha*, providing relief to sufferers. Through actions like *Chedana*, *Bhedana*, and *Lekhana*, *Arka Kshara* physically reduces pile masses, aiding in their elimination. Its alkaline nature and high pH (11.2) induce potent cauterization of hemorrhoidal plexuses, leading to fibrosis and necrosis of mucosa. This process contracts anal cushions and expels hemorrhoids, addressing the root cause. By promoting coagulation, necrosis, and fibrosis, *Arka Kshara* prevents further dilation of veins and prolapse of mucosal tissue, potentially providing long-term relief from hemorrhoidal symptoms^[11].

Kutaja Kshara is known for its ability to stop bleeding, making it effective in treating conditions like hemorrhoids where bleeding is a common symptom. Its *Shodhan* property aids in the removal of impurities and diseased tissue from the affected area, promoting healing. *Kutaja Kshara* exhibits cauterizing properties, known as *Dahan*, which help in burning away excess tissue and promoting the healing of wounds or ulcers. Additionally, it possesses *Pachan* properties, which may aid in breaking down and digesting abnormal tissue, promoting the regeneration of healthy tissue. *Kutaja Kshara*, with its *Tri-doshasamak* action, may help in balancing *Vata*, *Pitta*, and *Kapha doshas*, thus restoring the equilibrium of the body and promoting overall well-being^[6].

Despite the apparent simplicity of *Kshara Karma*, its adoption remains limited, potentially attributed to the perceived challenges in preparing *Pratisaraneeya Kshara* with the correct potency. The meticulous adherence to Sushruta's technique for *Kshara* preparation, ensuring the achievement of "*Pakwa Jambuphala Sadrusha Varna*" of red pile mass within *Shatamatra kala* (approximately two minutes), addresses this concern. The cost-effective nature of *Kshara Karma* as a para-surgical procedure is underscored, requiring

a minimal hospital stay, exhibiting swift recovery times, and boasting low recurrence rates. Notably, the discussion highlights the superior efficacy of *Teekshna Kshar* over *Mridu Kshar*.

Additionally, the review sheds light on the remarkable effectiveness of *Apamarg Kshar* in reducing pile mass. Numerous comparative studies have employed *Apamarg Kshar* as a standard, emphasizing its pivotal role in advancing our understanding of *Kshar Pratisaran*. The duration of treatment varies across different *Kshara* therapies, typically ranging from 14 to 30 days. Specifically, in our study, the reduction in pile mass commenced as early as the 7th day of treatment, with complete reduction often achieved by the 28th day. Notably, approximately 50% of *Kshara* therapies demonstrated significant reduction in pile mass within 21 days. This variability in treatment duration may stem from factors such as the severity of hemorrhoids, individual patient responsiveness to treatment, and the unique properties of each *Kshara* formulation. While *Kshara* therapies are generally safe, some patients may experience complications during the procedure. Among the most commonly reported complications are a burning sensation, blackish-brown discharge, and

sphincter spasm. Blackish-brown discharge typically resolves on its own^[7] and sphincter spasm can be effectively managed with sitz baths^[11]. Additionally, local application of *Yashtimadhu taila* has proven effective in alleviating burning sensations^[20]. Importantly, these complications are easily treatable and do not typically lead to significant adverse effects.

CONCLUSION

In conclusion, this scientific exploration not only validates the efficacy of *Pratisarniya Kshar* in diminishing the size of pile mass but also emphasizes the significance of adherence to precise preparation techniques and the potential superiority of specific *Kshar* types. This systematic review contributes to the evolving discourse on the management of *Arsha*, offering insights that hold promise for further advancements in therapeutic interventions.

REFERENCES

1. John Goligher: Surgery of the anus, rectum and colon. "Hemorrhoids or Piles" chapter Edited by: John Goligher Edition: 5th Vol: 1 2001:15
2. Agarwal N, Singh K, Sheikh P, Mittal K, Mathai V, Kumar A. Executive Summary - The Association of Colon & Rectal Surgeons of India (ACRSI) Practice Guidelines for the Management of Haemorrhoids-2016. Indian J Surg. 2017 Feb;79(1):58-61.
3. Kaviraj Ambika Datt Shastri(editor). Sushruta Samhita of Sushruta, Sutrasasthan, chapter 33, verse no.4, edition reprint, Varanasi; Chaukhambha Sanskrit Sansthan;2017:163
4. Kaviraj Ambika Datt Shastri(editor). Sushruta Samhita of Sushruta, Chikitsasthan, chapter 6, verse no.3, edition reprint, Varanasi; Chaukhambha Sanskrit Sansthan;2017:46
5. P. Hemantha Kumar. Recent Trends in The Management of Arshas/ Hemorrhoids; Edition: Second Revised, Chaukhambha Sanskrit Pratishthan; Delhi; 2011;3-4
6. Dudhamal T, Gupta S, Bhuyan C, Singh K. Clinical study of Kutaja and Palasha Kshara in the management of Arsha. Indian Journal of Ancient Medicine and Yoga. 2009 Jan 1; 2:117-122.
7. Gopalakrishnan, R., & Raveendrakurup, A. K. Efficacy of Kshara Karma (Caustic therapy) in Primary and Secondary Third Degree Arshas (Haemorrhoids): A Case Report. Journal of Research in Traditional Medicine, 3(5) 2017, 137-142
8. Majumder, S., & Mashetti, N. B. A comparative clinical study on the effect of Saptacchada Pratisaraniya Kshara and Apamarga Pratisaraniya Kshara in the management of Arshas (Internal Haemorrhoids). Journal of Ayurveda and Integrated Medical Sciences, 2019, 4(05), 7-10.
9. Katkade, S. S., & Kulkarni, J. Study of Snuhi Pratisaraneeya Kshara for the management of Abhyantara Arsha. J. Bio. Innov, 2022, 11(5), 1261-1265.
10. Mudgal, H., & Kumar, P. H. A clinical study on the efficacy of Vasa Pratisaraneeya Teekshna Kshara in the management of Abhayantara Arsha/Haemorrhoid. International Journal of Ayurveda and Pharma Research, 8(Supply1), 2020, 57-61.

11. Badwe, Y., & Maindale, K. V. Comparative study of Arka Kshara and Apamarga Kshara Pratisaran in the treatment of Arsha – A randomized controlled trial. World Journal of Pharmaceutical Research, 2020, 9(14), 157.
12. Ukhalkar, V. Evaluation of effects of yavakshar ointment on abhyantar arsha (internal piles). International Journal of Research in Ayurveda & Pharmacy, 2013, August 26, 4, 574-582.
13. Majumder, S., & Mashetti, N. B. A comparative clinical study on the effect of Saptacchada Pratisaraniya Kshara and Apamarga Pratisaraniya Kshara in the management of Arshas (Internal Haemorrhoids). Journal of Ayurveda and Integrated Medical Sciences, 2019, 4(05), 7-10.
14. Shah, B., Dudhamal, T. S., & Prasad, S. Efficacy of Kshara application in the management of internal haemorrhoids–A pilot study. Journal of US-China Medical Science, 2016, 13, 169-173.
15. Yala K. A Study on the Efficacy of Karaveera Pratisaraneeya Kshara Karma in Arshas WSR to Internal Haemorrhoids (Doctoral dissertation, Rajiv Gandhi University of Health Sciences (India)), 2018.
16. Rbams KK. A Study on the Efficacy of Vibhitaki Kshara Pratisarana Karma in Arshas WSR to Internal Haemorrhoids (Doctoral dissertation, The Rajiv Gandhi University of Health Sciences), 2017.
17. Arakeri SJ, Marathe A, Fatima SA, Kadegaon M. A study on the efficacy of Karanja Pratisaraneeya Kshara in the management of Arshas wsr to Internal Haemorrhoids. Journal of Ayurveda and Integrated Medical Sciences. 2018 Oct 31; 3(05):64-9.
18. Surabhi Chandra P., Sridhar Rao SM, & Vasudha A. A conceptual study on the effect of Tilwaka Prathisaraneeya Kshara in Internal Haemorrhoids. Journal of Ayurveda and Integrated Medical Sciences, 2021, 6(02), 178-180.
19. Medical Sciences Variya, H. A clinical efficacy of Kadali Pratisaraneeya kshara in the management of abhyantara arshas (internal haemorrhoids). Journal of ayurveda and holistic medicine, 2021, 6(5).
20. Panchori P, Kumar H, Swapna B. A Comparative Clinical Study on Aragvadaadi Pratisaraneeya Kshar and IRC in the Management of Abhyantara Arsha w.s.r. to I and II Internal Haemorrhoid. J Ayurveda Integr Med. 2018;12(3):24-30
21. Patil M. Clinico-Comparative Study of Apamarga Kshar and Yava Kshara in the Management of Arsha w.s.r. to II- and III-Degree Haemorrhoids. J Ayurveda Integr Med. [2022];Volume11 page 28-34
22. Dudhamal TS, Gupta SK, Bhuyan C, Singh K. Clinical study of Kutaja and Palasha Kshara in the management of Arsha. Indian Journal of Ancient Medicine and Yoga (IJAMY) 2009; 2(2):117-
23. Barik Id, debnath sk, sahu ds, & hazra j. Clinical evaluation of apamarga prati-sharaniya (teekshna) kshara (local application) haritaki churna in the management of arsha (hemorrhoids). International journal of ayurveda and pharma research, 8(1), 2020,69-73
24. Kaviraj Ambika Datt Shastri(editor). Sushruta Samhita of Sushruta, Chikitsasthan, chapter 11, verse no.4, edition reprint, Varanasi; Chaukhambha Sanskrit Sansthan;2017:96
25. Kaviraj Ambika Datt Shastri(editor). Sushruta Samhita of Sushruta, Chikitsasthan, chapter 11, verse no.26, edition reprint, Varanasi; Chaukhambha Sanskrit Sansthan;2017:97

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26. Panchori P, Kumar H, Swapna B. A Comparative Clinical Study on Aragvadaadi Pratisaraneeya Kshar and IRC in the Management of Abhyantara Arsha with Special Reference to I and II Internal Hemorrhoid. J Ayurveda. 2018 Jul-Sep;12(3)

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