

KSHARA SUTRA FOR PILONIDAL SINUS: A NARRATIVE REVIEW OF RECURRENCE, HEALING, PAIN AND QUALITY OF LIFE

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ABSTRACT

Pilonidal sinus is a chronic inflammatory condition of the natal cleft that commonly affects adolescents and young adults. Pain, repeated discharge, abscess formation and recurrence can interfere with work, study, sitting and social life. Several operations are available, but treatment is still difficult because faster healing may come at the cost of wound problems or later recurrence. *Kshara Sutra* is an Ayurvedic para-surgical method in which a medicated thread is passed through the sinus tract and changed at planned intervals. The thread keeps the tract open for drainage and produces gradual debridement while healing occurs behind it. This narrative review examines its classical basis, proposed actions, clinical use and reported outcomes, with special attention to recurrence, healing time, pain and quality of life. Published evidence specific to pilonidal sinus is limited mainly to case reports and small case series.

These reports describe healing from about four weeks to several months, with few short-term complications; however, their small samples and limited follow-up do not establish superiority over modern surgery. *Kshara Sutra* appears to be a useful tissue-preserving option in selected chronic, uncomplicated tracts when performed by trained practitioners. Standard preparation, careful case selection, transparent reporting and well-designed comparative trials are needed before firm conclusions can be made.

KEYWORDS: *Kshara Sutra*; pilonidal sinus; *Nadi Vrana*; recurrence; wound healing; quality of life.

INTRODUCTION

Pilonidal sinus disease develops in the cleft between the buttocks, usually near the coccyx. It may appear as one or more pits, a draining sinus or an acute abscess. The condition is especially common in adolescents and young adults. Hair entering the skin, friction, a deep natal cleft, sweating, obesity and prolonged sitting are recognised contributors. The disease is benign, but its effect on day-to-day life can be considerable. Pain makes sitting difficult, discharge soils clothing, and repeated dressings or procedures can lead to absence from college or work.^{[1][2]}

The treatment problem is easy to state but difficult to solve: the diseased tract and embedded hair must be removed or controlled without creating a wound that takes months to heal. Incision and drainage relieves an acute abscess but does not always prevent later disease. Wide excision can clear the tract, although the open wound may need prolonged care. Primary closure heals faster, but a closure placed in the midline carries a higher risk of wound failure and recurrence. Current guidance therefore favours an individual approach and, when closure is chosen, an off-midline technique.^{[1][3]}

In Ayurveda, a chronic discharging tract is discussed under *Nadi Vrana*. The clinical similarity is not exact, and pilonidal sinus should not be treated as a simple translation of one classical diagnosis. Even so, the practical problem described in both settings is similar: a narrow tract remains unhealthy because it contains debris, discharge or a foreign body. *Kshara Sutra* was developed as a way to drain and gradually open such a tract while limiting damage to nearby tissue. This review considers whether that principle has a useful place in modern management of pilonidal sinus.

The main question is not whether small published reports are encouraging; many of them are. The more important question is how dependable those findings are when recurrence, healing time, pain and patient quality of life are assessed together. A balanced answer requires respect for the Ayurvedic procedure as well as a clear account of the limits of the current evidence.

REVIEW METHOD

This article is a narrative review. Classical Ayurvedic passages related to *Kshara*, *Kshara Sutra* and *Nadi Vrana* were considered together with published clinical reports on pilonidal sinus and current surgical guidelines and reviews. Searches used combinations of the terms

“pilonidal sinus,” “pilonidal disease,” “Kshara Sutra,” “Nadi Vrana,” “recurrence,” “healing,” “pain,” “quality of life,” “off-midline closure” and “endoscopic treatment.” Greater weight was given to guidelines, systematic reviews, comparative studies and reports that stated sample size, healing time and follow-up.

Because the direct literature on *Kshara Sutra* for pilonidal sinus is small and heterogeneous, no pooled estimate was attempted. Findings from fistula-in-ano were used only to explain the development and general behaviour of the medicated thread; they were not treated as direct proof of effectiveness in pilonidal disease. The review therefore presents the available evidence as descriptive and hypothesis-generating rather than definitive.

PILONIDAL SINUS: CLINICAL CONTEXT

Disease process and presentation

The acquired theory of pilonidal disease is now widely accepted. Loose or broken hair collects in the natal cleft and may be driven into enlarged follicles or small skin pits by friction and local movement. The hair then acts as a foreign body. Inflammation, bacterial colonisation and granulation tissue develop around it, producing a cavity and one or more sinus tracts. A deep, moist cleft makes this process more likely to continue. The patient may have intermittent pain and discharge for months, or may first present with a tense, painful abscess.^{[2][3]}

Diagnosis is usually clinical. Midline pits, secondary openings, hair within the tract and discharge in the upper natal cleft are typical. Imaging is not routinely required for a simple primary sinus, but ultrasonography or magnetic resonance imaging may be useful when disease is recurrent, unusually extensive, close to the anus or difficult to distinguish from an anal fistula. Hidradenitis suppurativa, infected epidermoid cyst, Crohn-related fistula, tuberculosis, osteomyelitis and, rarely, malignant change in a long-standing wound should be considered when the presentation is atypical.

Treatment goals

A successful treatment should do more than close the visible opening. It should remove hair and unhealthy granulation tissue, maintain drainage until sepsis has settled, allow durable healing and reduce the depth or conditions of the cleft that encourage recurrence. It should also minimise pain, time away from normal activity, dressing burden and cosmetic damage. These goals explain why no single operation suits every patient. A small primary tract and a

complex recurrent network are different problems and should not be treated as though they are the same.

AYURVEDIC BASIS

Sushruta described *Kshara* as an important para-surgical agent because it can perform actions comparable to cutting, opening and scraping while also cleansing an unhealthy wound. The properties traditionally expressed as *Chedana*, *Bhedana*, *Lekhana*, *Shodhana* and *Ropana* may be understood clinically as controlled division of tissue, opening and drainage, removal of unhealthy material, wound cleansing and support of healing.^[4] This interpretation is a practical correlation, not a claim that Ayurvedic and modern theories are identical.

In the treatment of *Nadi Vrana*, Sushruta advised the use of a medicated thread in situations where wide cutting with a sharp instrument was undesirable or difficult.^[5] The important idea is that the tract is addressed along its length rather than treated only at the external opening. In pilonidal disease, this principle is relevant because retained hair, debris and unhealthy tissue within the channel are important reasons for persistent discharge and recurrence.

The present standard *Apamarga Kshara Sutra* is a later, pharmaceutical development of these classical principles. It uses a surgical linen thread coated in a fixed sequence with *Snuhi Ksheera*, *Apamarga Kshara* and *Haridra Churna*. The thread provides the mechanical support; the coatings provide the local chemical action. Standardisation of the coating sequence made the procedure more reproducible and suitable for clinical study.^[6]

STANDARD KSHARA SUTRA AND PROCEDURE

Preparation

A commonly described standard thread is surgical linen No. 20 with 21 coatings: 11 coatings of *Snuhi Ksheera* (latex of *Euphorbia neriifolia*), seven coatings in which *Apamarga Kshara* (alkaline ash of *Achyranthes aspera*) is applied over fresh latex, and three final coatings of *Haridra Churna* (*Curcuma longa*) over latex. Each layer is dried before the next is applied. The completed thread should be uniform, strong, free from cracks or loose particles, packed separately and labelled with its batch and date of preparation.^[6]

Table 1: Components of standard *Apamarga Kshara Sutra*.

Component	Common source	Practical role	Quality point
Surgical linen No. 20	Non-absorbable linen thread	Carries the coating and maintains tract drainage	Adequate tensile strength and uniform diameter
<i>Snuhi Ksheera</i>	Latex of <i>Euphorbia neriifolia</i>	Acts mainly as the binding medium and contributes local tissue action	Fresh, correctly identified latex; uniform application
<i>Apamarga Kshara</i>	Alkaline ash of <i>Achyranthes aspera</i>	Provides the main alkaline and debriding action	Controlled preparation, pH and absence of contaminants
<i>Haridra Churna</i>	Powder of <i>Curcuma longa</i> rhizome	Forms the outer coating and is traditionally used for wound support	Fine, clean powder with correct botanical identity

Clinical application

The procedure is generally performed under local or regional anaesthesia after the tract has been examined. Hair and debris are removed, and the tract is gently probed without force. The medicated thread is passed through the complete channel and tied outside the skin without excessive tension. In a branched or complex sinus, one loop may not reach every extension; incomplete mapping can leave residual disease. For this reason, careful examination is more important than speed.

The thread is replaced at an interval decided by the protocol, commonly around seven days. At each visit, the wound is assessed for pain, discharge, induration, bleeding, local infection, length of tract and progress of cut-through. The old thread may be used to guide the new thread through the tract. Cleaning, a simple absorbent dressing and removal of loose hair from the cleft continue throughout treatment. The thread should not be tightened simply to shorten treatment, because excessive pressure can increase pain and tissue injury.

An acute pilonidal abscess requires prompt drainage; a medicated thread should not delay control of sepsis. Definitive treatment can be planned after inflammation has settled. Modern guideline-based care also supports lateral incision and drainage for acute abscess and individual selection of a later definitive procedure.^[1] The same safety principle should be followed when *Kshara Sutra* is considered.

PROPOSED MECHANISMS OF ACTION

The action of *Kshara Sutra* is often described as “cutting and healing together.” This is useful

shorthand, but the process is probably a combination of several local effects rather than one single mechanism. The thread acts as a seton, the knot creates controlled pressure, and the alkaline coating produces chemical debridement. At the same time, the open channel permits discharge to escape. Healing then advances from the cleaner base and sides of the tract.

Mechanical action and drainage

A thread placed through the sinus prevents premature closure of the outer opening while deeper infection remains. Continuous drainage reduces the chance that pus will again collect behind a sealed surface. Movement and gentle pressure from the loop also help separate unhealthy granulation tissue. This part of the treatment can be understood without assuming a specific herbal effect: it follows the basic surgical principles of drainage, removal of foreign material and avoidance of a closed infected cavity.

Alkaline debridement

Apamarga Kshara is alkaline. Contact with tissue produces local chemical cauterisation and softening of devitalised material. Pharmaceutical work has shown that the properties of *Apamarga Kshara* vary with the raw plant, washing and concentration process; this is why preparation cannot be left to visual judgement alone.^[12] In clinical use, the desired action is limited debridement along the tract. An overly strong or uneven coating may instead cause unnecessary burning, pain or damage to normal skin.

Local wound environment

Chronic wounds remain inflamed when bacteria, debris, poor drainage and repeated trauma persist. Removing these barriers allows granulation, contraction and epithelialisation to proceed.^[13] *Haridra* contains curcuminoids and has laboratory and clinical literature describing anti-inflammatory and antimicrobial activity, although evidence from oral or topical turmeric products cannot be directly transferred to a coated thread inside a pilonidal tract.^[14] Its role in *Kshara Sutra* should therefore be described as supportive and plausible, not proven independently.

Similarly, statements that the medicated thread sterilises the sinus or guarantees recurrence-free healing go beyond the available evidence. Bacteria in pilonidal disease are part of a wider problem that includes hair, pits, moisture and tract anatomy. A fall in discharge after treatment may reflect improved drainage and debridement as much as a direct antimicrobial effect. The most defensible explanation is a combined mechanical and chemical action within

an appropriately selected tract.

Table 2: Proposed actions of Kshara Sutra in a pilonidal tract.

Action	Likely local effect	Strength of direct evidence
Seton effect	Keeps the tract open and permits ongoing drainage	Clinically plausible; widely accepted surgical principle
Controlled pressure	Gradual opening of the tract and removal of unhealthy tissue	Supported by procedural observation; dose of pressure is not standardised
Alkaline coating	Chemical debridement and cauterisation	Supported by the nature of <i>Kshara</i> ; pilonidal-specific mechanistic studies are lacking
Removal of hair and debris	Reduces continued foreign-body inflammation	Important in accepted pilonidal pathogenesis
Open healing behind the thread	Granulation and epithelialisation proceed from a cleaner base	Reported clinically, but not well quantified
Antimicrobial/anti-inflammatory effect	May reduce local bioburden and inflammation	Plausible from ingredients; direct contribution in pilonidal sinus is uncertain

CLINICAL EVIDENCE

The strongest clinical evidence for *Kshara Sutra* comes from fistula-in-ano, including a multicentre randomised trial published by the Indian Council of Medical Research.^[7] That work helped establish the medicated thread as an ambulatory para-surgical treatment. However, anal fistula and pilonidal sinus differ in anatomy, bacterial exposure and risk to surrounding structures. Results from one condition cannot be used as a substitute for direct trials in the other.

Evidence specific to pilonidal sinus remains limited. Early publications by Dwivedi and by Shinde and Toshikhane were case reports describing successful healing.^{[8][9]} A retrospective series of ten patients later reported a wide healing range, from 42 to 133 days among those treated with *Kshara Sutra*.^[10] In a five-patient case series, Akhtar and colleagues reported a median cut-through time of 23 days and median complete healing time of 29 days; no recurrence was seen during a mean follow-up of about 20 months.^[11] These observations are useful, but they are too small to provide a dependable recurrence rate or to identify uncommon complications.

Table 3: Published clinical evidence directly related to pilonidal sinus.

Study	Design and sample	Main reported outcome	Important limitation
Dwivedi, 2010 ^[8]	Case report	Successful minimally invasive management was described	Single patient; no comparative group
Shinde and Toshikhane, 2010 ^[9]	Case report; one 22-year-old man	Thread changed every fourth day; complete healing in four weeks	Combined tract opening and secondary healing; limited follow-up detail
Manohar et al., 2012 ^[10]	Retrospective series; 10 patients, nine treated with thread	Healing with the thread ranged from 42 to 133 days	Small retrospective sample; heterogeneous previous treatment
Akhtar et al., 2017 ^[11]	Case series; five men	Median cut-through 23 days; median healing 29 days; no recurrence reported at mean 20.4 months	Highly selected simple disease; very small sample

Recurrence

Recurrence is the outcome most often used to promote one pilonidal treatment over another, yet it is also the easiest outcome to misread. A patient who is disease-free at three or six months may still recur later. Large analyses of conventional procedures show that recurrence changes substantially with length of follow-up and surgical technique.^[15] A study that reports “no recurrence” in five or ten patients therefore does not prove that recurrence is rare. It only states what happened in that small group during the period observed.

For *Kshara Sutra*, recurrence may be reduced if the complete tract is opened, hair is removed and healing occurs from the base. It may still occur when a branch is missed, the natal cleft remains deep and hair-filled, follow-up stops early, or the patient develops new midline pits. At present, the evidence supports saying that recurrence results are encouraging in selected cases, not that the procedure has a lower recurrence rate than off-midline flap surgery, pit-picking, endoscopic treatment or laser ablation.

Healing time

Healing time after *Kshara Sutra* is influenced by tract length, number of branches, interval between thread changes, active infection, previous surgery, local skin condition and patient factors such as smoking, obesity or poor glycaemic control. The published range from about four weeks to more than four months illustrates this variability.^{[9][10][11]} This is different from

the short skin-closure time seen after some operations. The patient may continue normal activity during treatment, but the tract is not considered healed until discharge has stopped and complete epithelialisation has occurred.

Future reports should distinguish four separate time points: relief of acute pain, cessation of discharge, complete cut-through or lay-open of the tract, and complete epithelial healing. Combining these outcomes into a single “cure time” makes studies difficult to compare. Photographic documentation, tract length at baseline and a fixed definition of healing would make the results much more useful.

Pain and treatment burden

The term postoperative pain is not fully accurate for a treatment that involves repeated outpatient thread changes. Pain may occur during the initial procedure, during replacement, from chemical irritation or while sitting in the first few days. Published pilonidal reports often describe discomfort as mild or manageable, but most did not use a validated visual analogue or numerical rating scale at fixed time points. Claims of less pain than flap surgery are therefore not yet supported by strong direct comparisons.

Treatment burden also includes weekly visits, dressings, local hygiene and anxiety about each thread change. Some patients may prefer this gradual outpatient process to a larger operation, while others may prefer a single procedure with a shorter schedule. A genuinely patient-centred comparison must measure both pain intensity and the number of days on which treatment interferes with usual life.

Quality of life and return to activity

Pilonidal disease affects more than wound status. In adolescents, pain and discharge have been shown to interfere with daily activity, sport, school or work and social contact; these areas improve after effective treatment.^[19] *Kshara Sutra* may offer an advantage when it avoids hospital admission and permits early walking and work. Yet direct studies have rarely measured quality of life with a validated tool. Statements about better body image, confidence or satisfaction are usually based on narrative patient reports.

Future trials should record days to return to work or study, days requiring analgesics, number of dressings and clinic visits, satisfaction with the scar, and a general quality-of-life measure such as EQ-5D or SF-12. A pilonidal-specific instrument may be added when available and

validated for the study population. These outcomes matter because a treatment that heals eventually but disrupts life for several months may not be acceptable to every patient.

COMPARISON WITH CONTEMPORARY OPTIONS

Modern treatment is moving away from routine wide midline excision and toward procedures chosen according to disease extent. Evidence consistently shows better wound outcomes with off-midline closure than with conventional midline closure.^[16] Off-midline flaps such as the Karydakakis procedure, Limberg flap and Bascom cleft lift are especially useful for complex or recurrent disease, but they require operative expertise and create a larger surgical field.

Minimally invasive procedures aim to clear pits and tracts through small openings. Endoscopic pilonidal sinus treatment permits direct removal of hair and granulation tissue and generally gives short recovery and good cosmetic results, although long-term comparative evidence is still developing.^{[17][18]} Laser tract ablation follows a similar tissue-preserving aim but depends on equipment and operator training. Hair reduction is an important adjunct; a 2024 meta-analysis of randomised trials found fewer recurrences with laser epilation, although protocols varied.^[20]

Kshara Sutra shares the tissue-preserving intention of these minimally invasive methods, but it achieves tract opening gradually and requires repeat visits. Its low equipment cost may be attractive in settings where endoscopy or laser is unavailable. The trade-off is a longer active treatment period and a much smaller evidence base. It should therefore be presented as one option for selected patients, not as a universal replacement for contemporary surgery.

Table 4: Practical comparison of common treatment approaches.

Approach	Main advantage	Main drawback	Current evidence position
Open excision	Removes visible disease and allows drainage	Large wound and prolonged dressing care	Established option; recurrence may be lower than midline closure but healing is slower
Off-midline flap	Faster closure and lower recurrence than midline closure	Larger operation; requires experience; wound complications remain possible	Supported by guidelines and comparative evidence
Pit-picking/limited excision	Small wounds and quick recovery in simple disease	May miss extensive branches; recurrence depends on selection	Reasonable for limited primary disease
EPSiT/laser	Direct tract treatment,	Equipment, cost and	Promising minimally

tract treatment	little tissue loss and quick return to activity	variable long-term evidence	invasive options with growing evidence
<i>Kshara Sutra</i>	Outpatient, low equipment cost, continuous drainage and limited tissue loss	Repeated visits, variable pain and longer treatment in some patients	Encouraging small reports; comparative evidence is inadequate

PATIENT SELECTION AND STANDARDISATION

Selection should begin with anatomy, not with a preference for one system of treatment. *Kshara Sutra* is most reasonably considered for a chronic, clinically defined tract with accessible openings, no uncontrolled acute abscess and a patient who can attend repeated follow-up. A single or limited tract is easier to treat than multiple branching sinuses. Patients who value tissue preservation, wish to avoid a larger operation, or have limited access to advanced surgical equipment may find the method acceptable after informed discussion.

Complex recurrent disease, extensive lateral branches, severe scarring, an opening close to the anus, suspected anal fistula, atypical induration or a long-standing non-healing ulcer needs specialist evaluation and often imaging. Uncontrolled diabetes, severe immune compromise, active systemic infection and poor ability to perform wound care are reasons to correct the underlying problem or choose another plan. Current European guidance also stresses classification, patient preference and matching the procedure to disease complexity.^[21]

Minimum procedural standard

- Confirm the diagnosis and record the number and position of pits and secondary openings.
- Drain an acute abscess before planning definitive tract treatment.
- Use a documented batch of correctly prepared and packed *Kshara Sutra*.
- Record tract length, branching, anaesthesia, thread-change interval and any additional procedure.
- Use the same definitions for healing, complication and recurrence throughout the study or clinical audit.
- Continue follow-up for at least 12 months; longer follow-up is preferable for recurrence.
- Provide advice on cleft hygiene, keeping the area dry, weight control where relevant and safe hair management.

Safety and complications

Expected short-term problems include burning, pain during thread change, mild bleeding, local skin irritation and continued discharge while the tract is open. More important complications include cellulitis, abscess, false passage, incomplete treatment of a branch, delayed healing and a troublesome scar. These should be recorded actively rather than described only when severe. Adverse effects from the coating itself, including marked irritation or allergy, also need reporting because uniform pharmacovigilance data are not available.

Pain that suddenly increases, fever, spreading redness, a new fluctuant swelling or failure of the tract to progress should prompt reassessment. Continuing weekly changes without reviewing the diagnosis can delay appropriate treatment. A safe integrative practice therefore requires access to surgical drainage, imaging and referral when the disease is not behaving as expected.

PREVENTION OF RECURRENCE

Recurrence prevention begins before the wound closes. Loose hair should be removed from the tract, and the natal cleft should be kept clean and dry. Prolonged uninterrupted sitting, repeated friction and excess moisture should be reduced when possible. Weight management may help selected patients, although it is not a substitute for adequate tract treatment. The choice and timing of hair removal should be explained carefully; aggressive self-shaving over a fresh wound can injure the skin. Laser epilation may be considered when available, particularly in patients with dense hair or previous recurrence.^{[1][20]}

Follow-up should include inspection for new midline pits, retained hair, persistent moisture and incomplete epithelialisation. A wound that appears closed at the surface but remains tender or intermittently discharging should not be labelled cured. Patients should be told that recurrence can occur after any method and that early review of a new pit or swelling is easier than waiting for another large abscess.

LIMITATIONS OF THE CURRENT EVIDENCE

The present literature has four major weaknesses. First, most direct reports are single cases or very small series. Second, patient selection is narrow and often excludes recurrent, multiple or co-morbid disease, which can make outcomes look better than they would in routine practice. Third, healing, recurrence and pain are not measured in the same way across studies.

Fourth, follow-up is often too short to judge durability. Publication bias is also likely because successful cases are more likely to be written and accepted than treatment failures.

There is also procedural variation. Different authors use standard *Apamarga Kshara Sutra*, modified threads, partial excision plus threading, different replacement intervals and different definitions of cut-through. These are not one identical intervention. A review that combines them without qualification can create a false impression of certainty. For publication and clinical audit, every report should state exactly what thread was used and what other procedure was performed.

FUTURE RESEARCH

The next useful study is not another isolated successful case. A prospective multicentre cohort with a fixed protocol would first establish realistic healing, complication and one- to three-year recurrence rates. After feasibility is clear, a randomised comparison could test *Kshara Sutra* against a suitable modern option for the same disease class, such as pit-picking or EPSiT for limited primary disease. Comparing it with a flap in a mixed group of simple and complex cases would not answer a fair clinical question.

Trials should use blinded outcome assessment when possible, register the protocol, report losses to follow-up and analyse patients in the groups to which they were assigned. Cost analysis should include not only the price of the procedure but also travel, dressings, repeated visits, days away from work and treatment of recurrence. Qualitative interviews may help explain why some patients accept weekly thread changes while others do not.

Table 5: Core outcomes recommended for future trials.

Domain	Suggested measure	Recommended timing
Healing	Complete epithelialisation with no discharge; report tract length and time to cut-through separately	Weekly until healed
Recurrence	New pit, abscess or discharging sinus requiring treatment	6, 12, 24 and preferably 36 months
Pain	0-10 numerical rating scale and days requiring analgesics	Procedure day, each change, day 1-3 after change, then weekly
Quality of life	EQ-5D, SF-12 or a validated pilonidal-specific tool	Baseline, healing, 3 months and 12 months
Function	Days to return to work/study, sitting, sport and usual activity	Recorded prospectively
Treatment	Number of visits, dressings, travel days	Throughout treatment

burden	and total treatment cost	
Safety	Infection, bleeding, skin injury, allergy, false passage, delayed healing and reintervention	Each visit and final follow-up
Satisfaction	Scar satisfaction and willingness to choose the same treatment again	After healing and at 12 months

CONCLUSION

Kshara Sutra offers a clear and clinically understandable approach to pilonidal sinus: it keeps the tract draining, gradually removes unhealthy tissue and allows healing with limited loss of surrounding skin. This makes it a reasonable tissue-preserving option for selected chronic, uncomplicated tracts, particularly where outpatient care and low equipment cost are important.

The available publications are encouraging, but they do not yet show that *Kshara Sutra* has less recurrence, faster healing, lower pain or better quality of life than well-performed modern procedures. Direct evidence consists mainly of case reports and small series, and reported healing varies from about four weeks to several months. The correct conclusion is therefore promising potential with incomplete evidence.

Wider acceptance will depend on standard thread preparation, careful selection, honest reporting of complications, clear outcome definitions and long-term comparative trials. An integrative approach is strongest when it preserves the practical wisdom of Ayurveda while applying the same standards of safety and evidence expected of any surgical treatment.

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CONFLICT OF INTEREST

The author declares no conflict of interest.

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