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HOLISTIC AYURVEDIC PERSPECTIVES IN THE PREVENTION AND TREATMENT OF ANORECTAL DISORDERS

***Dr. Vaisakh R[1], Prof (Dr.) Narinder Singh[2], Prof.(Dr.) P. Hemantha Kumar[3], Dr. Anusree P L[4]**

[1]M.S. Scholar, Department of Shalya Tantra, National Institute of Ayurveda, Deemed to be University, Jaipur, Rajasthan, vaisakhachu96@gmail.com, +918129184698

[2]M.S., Ph.D. (Ayu.), Professor, Department of Shalya Tantra, National Institute of Ayurveda, Deemed to be University, Jaipur, Rajasthan, narinder.1973@gmail.com

[3]M.S., Ph.D. (Ayu.), Pro Vice Chancellor, H.O.D & Professor, Department of Shalya Tantra, National Institute of Ayurveda, Deemed to be University, Jaipur, Rajasthan, profphknia@gmail.com

[4]M.D. Scholar, Department of Kriya Sharir, Govt Ayurveda Medical College, Kannur, Kerala, sreeanu365anu@gmail.com

*Corresponding Author's Email ID: vaisakhachu96@gmail.com

ABSTRACT

Anorectal disorders, referred to in classical Ayurvedic literature as *Gudagata Vikara*, constitute a clinically diverse group of conditions affecting the ano-rectal canal that carry substantial morbidity across all demographic groups worldwide. The principal entities include *Arsha* (haemorrhoids), *Bhagandara* (fistula-in-ano), *Parikartika* (fissure-in-ano), *Gudabhramsha* (rectal prolapse), *Gudapaka* (perianal abscess), and *Shataponaka* (complex fistulae). The global prevalence of these disorders has escalated with the widespread adoption of sedentary lifestyles, fibre-depleted diets, unregulated psychosocial stress, and diminishing physical activity levels. Ayurveda provides a scientifically coherent aetiological model centred on *Tridosha* imbalance chiefly vitiation of *Apana Vata* and *Pitta Dosha* with consequent impairment of *Jatharagni* (digestive fire) and *Ama* (metabolic residue) formation as integral pathogenic steps. Classical treatises including *Sushruta Samhita*, *Charaka Samhita*,

Ashtanga Hridayam, and *Sharangadhara Samhita* document comprehensive preventive guidelines through *Nidana Parivarjana* (avoidance of causative factors) and graduated therapeutic approaches encompassing pharmacological management, *Kshara Karma* (chemical ablation), *Agnikarma* (thermal cauterisation), *Ksharasutra* (medicated thread therapy), and *Shastra Karma* (surgical excision). A growing body of clinical and pharmacological evidence validates several of these interventions, most notably *Ksharasutra* for fistula-in-ano and *Kshara Karma* for haemorrhoids. This review consolidates classical Ayurvedic scholarship with current biomedical evidence, offering a comprehensive and integrative framework for prevention and management of anorectal disorders.

KEYWORDS: *Arsha*, *Bhagandara*, *Gudagata Vikara*, *Kshara Karma*, *Ksharasutra*, *Nidana Parivarjana*, *Panchakarma*, *Parikartika*

INTRODUCTION

Anorectal disorders occupy a privileged position in the history of surgery. Egyptian papyri dating to 1700 BCE reference suppositories and topical applications for anal complaints, while the Hippocratic corpus devotes three treatises to haemorrhoids, fistulae, and fissures. Within the Ayurvedic tradition, Acharya Sushruta the celebrated progenitor of Indian surgical science allocated entire chapters of the *Sushruta Samhita* to the systematic classification, aetiopathogenesis, and operative management of anorectal conditions, reflecting their clinical primacy even in antiquity.[1] The anatomical region of the rectum and anus is designated *Guda* in classical texts, and disorders arising therein are collectively termed *Gudagata Vikara*.

Contemporary epidemiological evidence underscores the enduring relevance of these conditions. Symptomatic haemorrhoidal disease affects between 4.4% and 36.4% of the general population depending on the diagnostic criteria employed, with lifetime prevalence figures reaching 75% in some large-scale surveys.[2] Anal fissure accounts for 6–15% of all colorectal surgical consultations.[3] Fistula-in-ano, though less frequent, poses disproportionate therapeutic challenges due to high recurrence rates and the risk of sphincter injury associated with conventional surgical division.[4] The aggregate economic burden encompassing surgical costs, hospital admissions, productivity losses, and quality-of-life impairment renders anorectal disorders a priority public health concern in both high-income and low-income settings.

Despite significant advances in minimally invasive colorectal surgery including stapled haemorrhoidopexy, laser haemorrhoidoplasty, transanal haemorrhoidal dearterialisation, and video-assisted anal fistula treatment (VAAFT) recurrence rates and procedure-specific morbidity remain clinically significant.[4] These persistent limitations have catalysed renewed scholarly and clinical interest in classical therapeutic systems, foremost among which is Ayurveda, offering a patient-centred paradigm that integrates preventive regimen, pharmacotherapy, and procedure-based intervention within a unified theoretical framework.

The Ayurvedic model approaches anorectal health through three interconnected domains: dietary practice (*Ahara*), behavioural and lifestyle conduct (*Vihara*), and targeted therapeutics (*Chikitsa*). Each domain influences the dynamic equilibrium of the three biological humours *Vata*, *Pitta*, and *Kapha* whose sustained balance constitutes health (*Swasthya*). Disruption of this equilibrium, particularly of *Apana Vata* the sub-type governing pelvic organ function, defaecation, and evacuation initiates the pathogenic cascade underlying most *Gudagata Vikara*.[5]

This review has four objectives: (i) to present a systematic account of Ayurvedic classification and aetiopathogenesis of anorectal disorders; (ii) to delineate classical preventive guidelines and their contemporary biomedical correlates; (iii) to review procedural and pharmacological Ayurvedic interventions with available clinical evidence; and (iv) to outline prospects for integrative management within a multidisciplinary colorectal care framework.

MATERIALS AND METHODS

This review was conducted through systematic textual analysis of primary classical Ayurvedic sources including *Sushruta Samhita* (*Nidanasthana* Ch. 2, *Chikitsasthana* Ch. 6), *Charaka Samhita* (*Chikitsasthana* Ch. 14), *Ashtanga Hridayam* (*Nidanasthana* Ch. 7, *Chikitsasthana* Ch. 9), *Sharangadhara Samhita*, *Bhavaprakasha Nighantu*, and commentaries by Dalhana (*Nibandhasangraha*) and Arunadatta (*Sarvangasundara*). Secondary sources encompassed peer-reviewed articles indexed in PubMed, Scopus, Embase, AYUSH Research Portal, and the Central Council for Research in Ayurvedic Sciences (CCRAS) repository. Search terms employed combinations of: 'anorectal disorders *Ayurveda',* 'haemorrhoids traditional medicine', '*Ksharasutra* randomised trial', *'Kshara Karma* haemorrhoids', 'fistula-in-ano *Ayurveda*', '*Arsha* clinical study', '*Bhagandara* management'

Inclusion criteria

Classical textual references addressing aetiology, pathophysiology, preventive protocols, and therapeutic management of anorectal disorders were included. Peer-reviewed clinical studies including randomised controlled trials (RCTs), prospective cohort studies, systematic reviews, and pharmacological investigations evaluating *Ayurvedic* interventions for anorectal conditions published between 1990 and 2024 were eligible. Studies in English, Hindi, and Sanskrit with accessible translations were accepted.

Exclusion criteria

Studies evaluating exclusively allopathic surgical procedures without *Ayurvedic* comparators, case reports with insufficient clinical data, unpublished theses without available abstracts, and publications from non-peer-reviewed or predatory sources were excluded.

Data synthesis

Extracted information was organised thematically under the domains of anatomical basis, classification, aetiopathogenesis, preventive guidelines, pharmacotherapy, procedural interventions, and integrative perspectives. Classical *Ayurvedic* constructs were mapped onto contemporary pathophysiological equivalents wherever supporting evidence existed. Therapeutic interventions were assessed for mechanism, clinical evidence quality, and safety profile.

RESULTS AND DISCUSSION

1. Anatomical Basis: The Guda and Its Clinical Significance

Sushruta Samhita describes the *Guda* as comprising three concentric mucosal folds termed *Pravahini*, *Visarjani*, and *Samvarani*, which correspond broadly to the internal anal sphincter, external anal sphincter, and puborectalis muscle of contemporary surgical anatomy.[1] The terminal two-finger-breadths of the canal the *Guda* proper is recognised as a locus minoris resistentiae, receiving accumulated *Doshas* transported via the *Purishavaha Srotas* (channels conveying digestive waste). The term *Mamsa-ankura* (fleshy projection) accurately describes the pedunculated fibrovascular tissue that constitutes the haemorrhoidal pile a description consistent with the modern vascular cushion model proposed by Thomson.[12] This

anatomical precision demonstrates an advanced tradition of clinical surgical observation and provides a rational topographic basis for the classification of anorectal disorders.[6]

2. Classification of Gudagata Vikara

Classical Ayurvedic texts enumerate six principal categories of *Gudagata Vikara*. *Arsha* etymologically meaning 'enemy' on account of the suffering it inflicts is sub-classified into six types based on the dominant *Dosha*: *Vataja* (hard, dark, painful piles), *Pittaja* (soft, yellowish or bluish, burning and bleeding), *Kaphaja* (pale, smooth, mucus-coated, pruritic), *Sannipataja* (mixed features of all three *Doshas*), *Sahaja* (congenital, attributable to parental dietary transgressions during gestation), and *Raktaja* (predominantly haemorrhagic, representing advanced blood vitiation).[1,5]

Bhagandara is classified into five varieties *Shatapona*, *Ushtragreeva*, *Parisrava*, *Shambukavarta*, and *Unmargi* each corresponding to a distinct anatomical trajectory and *Dosha* combination.[1] This five-fold classification maps reasonably onto the Parks' classification of anal fistulae (intersphincteric, transsphincteric, suprasphincteric, and extrasphincteric) that underpins modern surgical decision-making.[7] *Parikartika* is characterised by acute cutting and burning pain in the ano-rectal region, particularly during and after defaecation, attributed to *Vata-Pitta* vitiation producing mucosal laceration correlating precisely with acute posterior midline anal fissure. *Gudabhramsha* (rectal prolapse) is assigned predominantly to *Vata* vitiation weakening the pelvic muscular support architecture.[7]

Table 1: Ayurvedic Classification of Gudagata Vikara with Doshic Correlation and Modern Equivalents

Condition	Classical Features	Dosha Predominance	Modern Equivalent
Arsha	Mamsa-ankura at Guda	Vata / Pitta / Kapha	Haemorrhoids (Grade I–IV)
Bhagandara	Sinus tract around Guda	Tridoshaja	Fistula-in-ano
Parikartika	Cutting perianal pain	Vata-Pitta	Anal fissure

Gudabhramsha	Mucosal protrusion	Vata	Rectal prolapse
Gudapaka	Perianal suppuration	Pitta-Kapha	Perianal abscess
Shataponaka	Multiple sinus openings	Sannipataja	Complex fistulae

3. Aetiopathogenesis: A Doshic Framework

The primary pathogenic axis of *Gudagata Vikara* revolves around vitiation of *Apana Vata* — the governing force of all downward pelvic evacuative functions. Habitual indulgence in documented causative factors (*Nidana*) disrupts *Jatharagni* (gastro-intestinal digestive capacity), leading to *Ama* (partially digested metabolic residue) formation. This accumulation within the *Purishavaha Srotas* and the *Gudamarga* produces *Srotodushti* (channel pathology) characterised by obstruction and overflow, culminating in structural and functional compromise of the anorectal mucosa and vasculature.[8]

The aetiological catalogue in classical texts encompasses: prolonged sitting on hard, cold, or irregular surfaces; habitual suppression of defaecatory and other natural urges (*Vegadharana*); excessive intake of dry, rough, cold, and pungent foods; insufficient dietary fibre and fluid consumption; sedentary occupation; repeated episodes of diarrhoea, dysentery, or irregular bowel habit; pregnancy and parturition; and hereditary predisposition transmitted via parental dietary transgressions during pregnancy.[1,9] These aetiological categories align closely with modern colorectal risk profiles: low-fibre intake, chronic constipation, prolonged straining, sedentary lifestyle, increased intra-abdominal pressure, and multiparity are consistently identified as independent risk factors in large epidemiological studies.[10,11]

At the microvascular and structural level, the modern understanding of haemorrhoidal pathogenesis involves deterioration of the fibromuscular anchoring tissue Treitz's muscle and Parks' ligament of the anal vascular cushions, resulting in sliding and prolapse.[12] From an Ayurvedic perspective, this corresponds to *Mamsa Dushti* (connective tissue degradation) and *Sira Dushti* (vascular channel pathology) consequent upon sustained *Vata-Pitta* aggravation. The inflammatory mediators and venous hypertension implicated in

haemorrhoidal pathophysiology functionally parallel the *Pitta*-mediated *Daha* (burning), *Rakta Dushti* (blood vitiation), and *Sira Shotha* (vascular engorgement) described in classical texts — a convergence that supports the translational validity of the Ayurvedic framework.[13]

4. Preventive Guidelines: Nidana Parivarjana

Nidana Parivarjana systematic avoidance of established aetiological factors is accorded foundational primacy in Ayurvedic preventive medicine. For *Gudagata Vikara*, classical texts prescribe regular consumption of *Takra* (buttermilk), *Haritaki* (*Terminalia chebula*), *Shunthi* (*Zingiber officinale*), *Yava* (barley), *Purana Shali* (aged red rice), and warm water as dietary cornerstones. These foods possess *Deepana* (digestive-stimulating) and *Anulomana* (bowel-regulatory) properties that maintain *Agni* competence, prevent *Malavibandha* (constipation), and protect the rectal mucosa from *Pitta*-mediated inflammation.[14]

Contemporary dietetic evidence substantiates these classical recommendations. A Cochrane systematic review and meta-analysis by Alonso-Coello encompassing seven randomised trials with 378 participants demonstrated that dietary fibre supplementation reduces the relative risk of persistent haemorrhoidal symptoms by approximately 50%, with significant reductions in bleeding and prolapse episodes.[15] The moisture-retaining and prebiotic properties of complex carbohydrates in barley and whole grain provide mechanistic support for the Ayurvedic advocacy of *Yava* in bowel health maintenance.

Behavioural preventive measures described in classical Ayurvedic texts include: avoidance of prolonged uninterrupted sitting, particularly on hard or cold surfaces; prompt response to defaecatory urges without delay or Valsalva exertion; abstention from excessive physical exertion and heavy lifting; maintenance of structured daily routine (*Dinacharya*); and regular perineal hygiene using medicated sitz baths (*Parisheka*) prepared from *Triphala Kwatha* or *Panchavalkala Kwatha*.[16] These recommendations parallel contemporary colorectal society guidelines, which uniformly emphasise increased physical activity, avoidance of prolonged toilet sitting, and timely defaecation as primary preventive strategies for haemorrhoidal disease.

The concept of *Ritucharya* (seasonal health regimen) introduces a further preventive dimension of contemporary relevance. During *Grishma Ritu* (summer) and *Sharad Ritu* (autumn) seasons of natural *Pitta* aggravation Ayurveda advocates avoidance of sour,

fermented, and pungent foods; liberal cooling fluids; and administration of *Pitta*-pacifying herbs including *Shatavari* (*Asparagus racemosus*) and *Amalaki* (*Emblica officinalis*). These recommendations align with epidemiological observations of seasonal variation in anorectal flare-ups, with haemorrhoidal exacerbations and anal fissure presentations demonstrating clustering in summer months in temperate climates.[17]

5. Pharmacological Management: Bheshaja Chikitsa

Ayurvedic pharmacotherapy for anorectal disorders employs single drugs and compound formulations delivered via oral administration, local application (*Abhyanga*), medicated enema (*Basti*), and suppositories (*Varti*). The selection of therapeutic agent is guided by the predominant *Dosha* involved, the clinical sub-type of *Arsha* (dry or bleeding), the stage of the disorder, and the patient's baseline constitution (*Prakriti*).[1,14]

Haritaki (*Terminalia chebula*) occupies a central position in anorectal pharmacotherapy. Its laxative activity mediated by chebulinic acid, chebulagic acid, gallic acid, and anthraquinone glycosides is complemented by well-documented antimicrobial, anti-inflammatory, and wound-healing properties.[18] A double-blind randomised clinical trial demonstrated that standardised *Haritaki* extract at 500 mg twice daily significantly improved stool consistency, reduced straining episodes, and decreased haemorrhoidal symptom severity scores over eight weeks compared to placebo.[19] *Triphala* the compound formulation of *Haritaki*, *Amalaki*, and *Bibhitaka* (*Terminalia bellerica*) demonstrates synergistic laxative, antioxidant, and anti-inflammatory activity, with demonstrated capacity to reduce oxidative mucosal damage in experimental colorectal inflammation models.[20]

Nagakeshara (*Mesua ferrea*) is traditionally prescribed for bleeding *Arsha* on account of its haemostatic, anti-inflammatory, and astringent properties. A controlled clinical trial by Sharma et al. reported statistically significant reduction in haemorrhoidal bleeding, pain, and pruritus following eight weeks of treatment with a *Nagakeshara*-based compound formulation compared to placebo, with an excellent safety profile and no documented adverse events.[21] *Kutaja* (*Holarrhena antidysenterica*) contributes styptic, astringent, and anti-dysenteric properties relevant to bleeding piles complicated by concurrent diarrhoeal conditions.[22]

Local applications play an important role, particularly for early-stage *Arsha* and *Parikartika*. *Kasisadi Taila* a classical oil formulation incorporating *Kasisa* (ferrous sulphate), *Haridra* (*Curcuma longa*), and sesame oil base exerts astringent, anti-inflammatory, and haemostatic

effects when applied topically to prolapsed or inflamed haemorrhoids. *Jatyadi Taila*, containing *Jati* (*Jasminum officinale*), *Nimba* (*Azadirachta indica*), and *Patola* (*Trichosanthes dioica*), promotes wound healing and reduces perianal sepsis, with documented antimicrobial activity against common anorectal pathogens.[23]

Table 2: Key Ayurvedic Formulations in Anorectal Management — Botanical Source, Indication, and Evidence

Formulation / Drug	Key Constituent(s)	Evidence / Indication
Haritaki Churna	Terminalia chebula	RCT: improves stool consistency, reduces straining [18,19]
Triphala Kwatha	T. chebula, T. bellerica, E. officinalis	Antioxidant, laxative; sitz bath; mucosal protection [20]
Arshakuthar Rasa	Compound herbo-mineral	Vataja and Pittaja Arsha; anti-inflammatory [14]
Nagakeshara	Mesua ferrea	RCT: reduces bleeding, pain, pruritus [21]
Kutaja Ghanavati	Holarrhena antidysenterica	Styptic; dysenteric bleeding piles [22]
Kasisadi Taila	Kasisa, Haridra, sesame oil	Topical haemostasis; anti-inflammatory [23]
Jatyadi Taila	Jasminum sp., Azadirachta indica	Wound healing; antimicrobial; perianal sepsis [23]
Apamarga Kshara	Achyranthes aspera	Ksharasutra coating; chemical ablation [4,24]
Nimba (Neem)	Azadirachta indica	Antimicrobial; wound care; fistula dressing [25]
Shatavari	Asparagus racemosus	Pitta-pacifying; mucosal protection; adjuvant [14]
Eranda Taila	Ricinus communis	Anuvasana Basti; lubricant laxative; Vata regulation [34,35]

6. Kshara Karma: Chemical Ablation Therapy

Kshara potassium-rich alkaline preparations derived from plant ash represent one of the most therapeutically versatile agents in Ayurvedic surgery. Sushruta categorises *Kshara* into *Prakshepa* (internal/oral) and *Pratisaraniya* (topically applied) varieties, and situates *Kshara Karma* as a superior intervention on account of its simultaneous cutting, haemostatic, scraping, and cleansing actions capabilities that in a single application approximate those of several distinct modern procedures.[1] *Pratisaraniya Kshara* applied directly to haemorrhoidal tissue through an ano-scope-guided applicator induces controlled chemical necrosis followed by mucosal healing, effectively achieving outcomes comparable to rubber-band ligation without the associated post-ligation pain syndrome.[24]

Clinical validation for *Kshara Karma* is accumulating at an encouraging pace. A randomised clinical trial comparing *Apamarga Kshara Karma* with rubber-band ligation for Grade II and Grade III haemorrhoids documented comparable reduction in prolapse and bleeding at three months, with significantly lower post-procedure pain scores in the *Kshara* group ($p = 0.003$).[26] A systematic review by Garg et al. covering 14 clinical studies concluded that *Kshara Karma* achieves effective ablation in Grade I–III internal haemorrhoids with a recurrence rate of 5–12% at one year comparable to injection sclerotherapy and rubber-band ligation while offering the additional advantages of an outpatient, single-session procedure without anaesthesia or instrumentation beyond a standard proctoscope.[27]

7. Ksharasutra Therapy: Mechanism, Technique, and Clinical Evidence

Ksharasutra the medicated alkaline thread technique represents the most extensively studied and institutionally recognised Ayurvedic surgical procedure. Preparation involves coating a size-20 surgical thread through successive application of *Snuhi* (*Euphorbia neriifolia*) latex (11 coats), *Apamarga Kshara* (7 coats), and *Haridra* powder (3 coats), yielding a final product with a pH typically exceeding 9.5. This alkaline thread, when placed within a fistulous tract through the internal opening under local anaesthesia, exerts simultaneous chemical cutting, cauterising, and draining actions.[4,24]

The thread is replaced weekly in the outpatient setting. The cutting rate averages 1 cm per week, significantly slower than surgical fistulotomy. This gradual division is the critical sphincter-preserving mechanism: progressive chemical fibrosis of the tract wall occurs concurrently with cutting, maintaining sphincter integrity through scar formation that

prevents the incontinence risk inherent in rapid surgical division.[31] The mechanism is functionally analogous to the long cutting seton technique described in contemporary colorectal surgery, but achieves the cutting chemically rather than mechanically, and crucially without the discomfort associated with progressive seton tightening.[32]

The landmark multi-centre RCT conducted under the auspices of the Indian Council of Medical Research (ICMR) involved 512 patients across seven tertiary centres, comparing *Ksharasutra* with conventional fistulectomy and fistulotomy. At one-year follow-up, the recurrence rate was 3.33% in the *Ksharasutra* arm versus 11.42% in the surgical arm, with a statistically significant advantage in sphincter preservation and significantly lower rates of postoperative wound complications in the Ayurvedic group.[28] Multiple independent replication studies have since confirmed these findings, with particular advantage demonstrated in high transsphincteric and suprasphincteric fistulae where conventional surgery carries unacceptable incontinence risk.[29,30]

A prospective comparative study by Singh et al. involving 60 patients with fistula-in-ano reported that *Ksharasutra* therapy yielded superior sphincter preservation and equivalent healing rates compared to fistulotomy, with a statistically significant difference in postoperative Wexner incontinence scores at six months ($p < 0.01$).[32] Quality-of-life assessment using the SF-36 questionnaire demonstrated significantly improved physical functioning, social functioning, and bodily pain domains in the *Ksharasutra* group at six-month follow-up.[32] A meta-analysis by Sharma et al. covering nine comparative studies ($n = 963$) confirmed a pooled recurrence odds ratio of 0.27 (95% CI 0.14–0.51) favouring *Ksharasutra* over conventional surgery.[40]

8. Agnikarma: Thermal Cauterisation

Agnikarma employs heat-producing instruments or substances including metallic probes (*Shalaka*), *Pippali* (long pepper), and medicated caustic preparations to ablate haemorrhoidal tissue, hypertrophied anal papillae, and perianal skin tags. The procedure induces controlled thermal necrosis of the target tissue, with subsequent fibrotic healing producing contracture that restricts further prolapse.[1,33]

A randomised comparative study evaluated *Agnikarma* using *Shalaka* versus injection sclerotherapy for Grade I and Grade II haemorrhoids. Both modalities achieved comparable symptom control at 12 weeks; however, the *Agnikarma* group demonstrated superior

outcomes in the reduction of mucosal oedema and prolapse tendency at six-month follow-up, attributed to the concurrent fibrotic anchoring effect of thermal injury on the submucosal connective tissue.[33] The procedure is particularly indicated for *Kaphaja Arsha* characterised by soft, pendulous, oedematous, mucus-secreting piles resistant to pharmacotherapy and *Kshara* application.

9. Shastra Karma: Surgical Excision

Shastra Karma surgical haemorrhoidectomy is reserved for Grade III–IV *Arsha* refractory to conservative and lesser procedural measures. Sushruta describes the excision of the haemorrhoidal mass at its pedicle following *Kshara* application to demarcate tissue boundaries, with subsequent haemostatic cauterisation of the stump a description that parallels the principle of the modern closed Ferguson haemorrhoidectomy.[1] Sushruta explicitly cautions against excessive excision that might compromise the anal mucosal architecture and produce *Gudabhramsha* (rectal prolapse) or anal stenosis an admonition that directly anticipates contemporary concerns regarding keyhole deformity and mucosal ectropion following over-zealous haemorrhoidectomy.[6]

The classical technique of *Samvarani Arsha* management addressing piles arising from the innermost mucosal fold involves upward digital reduction and chemical fixation with *Kshara* rather than excision, representing a conservative intervention philosophically similar to modern transanal haemorrhoidal dearterialisation with mucopexy, in which vascular ligation and mucosal repositioning replace formal excision.[41]

10. Panchakarma in Anorectal Management

Panchakarma the five-fold Ayurvedic bio-purification protocol contributes significantly to the management of complex and recurrent *Gudagata Vikara*, particularly where systemic *Dosha* imbalance underlies local disease. *Virechana* (therapeutic purgation) using *Trivrut* (*Operculina turpethum*) or *Eranda Taila* (castor oil) constitutes the primary systemic detoxification modality, reducing accumulated *Pitta* and *Ama* from the gastrointestinal tract, rectifying *Jatharagni* function, and establishing the clean internal environment essential for durable therapeutic response.[14,34]

Basti (medicated colonic instillation) specifically *Anuvasana Basti* with *Eranda Taila* for *Vata* pacification and *Niruha Basti* with *Dashamula Kwatha* for systemic detoxification addresses *Apana Vata* vitiation directly within the colon and rectum, softening inspissated stool,

reducing anorectal mucosal inflammation, and restoring neuromuscular co-ordination of the anorectal mechanism.[35] A clinical study by Patel et al. demonstrated statistically significant improvement in constipation scores, anorectal manometry parameters (resting and squeeze pressures), and haemorrhoidal symptom severity following a 14-day *Basti* protocol in patients with Grade II *Arsha* complicated by chronic constipation, with effect sizes comparable to those reported for osmotic laxative therapy.[35]

Parisheka (medicated sitz bath) using *Triphala Kwatha*, *Panchavalkala Kwatha* (five-bark decoction), or *Nimba Patra Kwatha* (neem leaf decoction) provides immediate symptomatic relief through anti-inflammatory, astringent, and antimicrobial mechanisms. Modern evidence supports warm sitz bathing as an effective adjunct for perianal pain relief in anal fissure, and the additional pharmacological properties of these herbal decoctions confer bioactive benefits beyond simple thermal effects.[16,25]

11. Integrative Perspectives: Convergence of Classical and Biomedical Science

The translational convergence between Ayurvedic anorectal medicine and contemporary biomedical science increasingly validates the classical framework at a mechanistic level. The venotonoconstrictive and anti-angiogenic properties of modern phlebotonic agents Diosmin, Hesperidin, and Ruscogenins echo the *Sira Sangrahana* (vascular toning) attributed to *Nagakeshara* and *Haritaki* in classical texts. Curcumin derived from *Haridra* inhibits NF-κB-mediated inflammation, downregulates pro-inflammatory cytokines (TNF-α, IL-1β, IL-6), and promotes fibroblast proliferation and collagen synthesis mechanisms directly relevant to wound healing in post-procedural anorectal care and to the anti-inflammatory phase of *Ksharasutra* tract management.[37]

The gut microbiome dimension has emerged as a frontier of particular relevance. Growing evidence links dysbiosis disrupted intestinal microbial ecology with chronic constipation, colorectal mucosal inflammation, and haemorrhoidal exacerbation.[38] *Takra* (Ayurvedic buttermilk) prescribed as a primary dietary vehicle in *Arsha* management now carries mechanistic validation: fermented buttermilk promotes colonisation by beneficial *Lactobacillus* and *Bifidobacterium* species, potentially addressing upstream microbial drivers of *Gudagata Vikara*.[39] The prebiotic fibre properties of *Triphala* and *Yava* similarly support the gut ecosystem through selective fermentation substrates that promote short-chain fatty acid production, improving colonic transit and mucosal integrity.[20]

Table 3: Comparative Overview of Ayurvedic and Conventional Interventions for Anorectal Disorders

Condition	Ayurvedic Procedure	Conventional Procedure	Comparative Outcome
Haemorrhoids Gr II–III	Kshara Karma	Rubber-band ligation	Comparable; less pain in Kshara arm [26,27]
Fistula-in-ano	Ksharasutra	Fistulectomy/fistulotomy	Lower recurrence; superior sphincter preservation [28,40]
Grade I–II Haemorrhoids	Agnikarma	Injection sclerotherapy	Equivalent 12 wk; superior 6-month prolapse reduction [33]
Chronic constipation + haemorrhoids	Virechana + Basti	Osmotic laxatives	Improved manometry and symptom scores [35]
Anal fissure	Jatyadi Taila + Basti	Topical GTN / Diltiazem	Clinical comparisons underway; topical evidence positive [23]
Grade III–IV Haemorrhoids	Shastra Karma	Ferguson haemorrhoidectomy	Principle convergence; formal RCTs warranted [1,6]

12. Future Directions

Several research priorities emerge from this review. First, large-scale, multi-centre RCTs comparing *Ksharasutra* with LIFT (ligation of intersphincteric fistula tract) and VAAFT (video-assisted anal fistula treatment) for complex fistulae are urgently needed, given the mechanistic parallels and preliminary evidence suggesting equivalence. Second, standardised pharmacokinetic and bioavailability studies for key Ayurvedic anorectal drugs particularly *Haritaki*, *Triphala*, and *Nagakeshara* would facilitate rational dose optimisation and regulatory acceptance. Third, microbiome-based investigations examining the effect of *Takra* and *Triphala* on gut microbial composition in patients with constipation-associated

haemorrhoidal disease would elucidate upstream preventive mechanisms. Fourth, quality-of-life and patient-reported outcome research comparing Ayurvedic procedural interventions with conventional surgery using validated instruments such as SF-36, FIQL, and disease-specific haemorrhoidal disease activity indices would provide the clinician-relevant endpoints that modern health technology assessment requires. Fifth, development and validation of standardised *Kshara* preparations with defined pH, titratable alkalinity, and chemical composition across manufacturing batches would ensure reproducibility and facilitate multi-centre trial design.

CONCLUSION

The Ayurvedic system offers a clinically coherent, evidence-enriched, and patient-centred framework for the prevention and comprehensive management of *Gudagata Vikara*. The classical emphasis on *Nidana Parivarjana* systematic elimination of dietary, behavioural, and constitutional causative factors represents a prevention paradigm of exceptional contemporary relevance, fully consonant with current evidence on dietary fibre, hydration, physical activity, and behavioural modification in anorectal health.

The procedural interventions particularly *Ksharasutra* and *Kshara Karma* have advanced from classical textual description to multi-centre clinical validation, with trial evidence confirming their efficacy and sphincter-preserving advantages in selected patient populations. Pharmacological management through classical formulations, underpinned by documented bioactivities of constituent herbs, provides rational complementary care that addresses systemic *Dosha* imbalance and restores *Agni* competence as prerequisites for durable recovery. The *Panchakarma* dimension, particularly *Basti* and *Virechana*, addresses upstream pathogenic determinants at the levels of colonic motility and microbial ecology that pharmacotherapy alone cannot adequately resolve.

The rising burden of anorectal disease in an era of dietary transition, sedentarism, and psychosocial stress renders the integration of Ayurvedic preventive wisdom with biomedical therapeutic precision not merely desirable but clinically necessary. Collaborative research frameworks, standardised preparation protocols, validated outcome instruments, and rigorous multi-centre trial design will be essential to realise the full potential of Ayurvedic anorectal medicine within contemporary multidisciplinary colorectal care.

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