

Lifestyle Modifications in Anorectal Disorders: A Review

Shilpa PN¹, Shanmugaloga S^{2*}

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¹ Shilpa PN, Professor, Department of Shalya Tantra, Government Ayurveda Medical College and Hospital, Bengaluru, Karnataka, India.

^{2*} Shanmugaloga S, Post Graduate Scholar, Department of Shalya Tantra, Government Ayurveda Medical College and Hospital, Bengaluru, Karnataka, India.

Anorectal disorders are the disorders that occurs at the rectum and anal canal which are the terminal parts of intestines. Anorectal disorders, such as haemorrhoids, anal fissures, anorectal abscess, fistulas, rectal prolapse, fecal incontinence are prevalent conditions that creates an agony both physically and mentally, hampers the individual routine and leads to complications if untreated. Lifestyle modifications play a crucial role in managing anorectal disorders, significantly impacting both physical health and quality of life. Evidence suggests that adopting specific lifestyle changes can alleviate symptoms, prevent recurrence, and enhance overall well-being. Studies indicate that fiber supplementation can decrease the incidence of symptoms by up to 50% in haemorrhoids patients.[1] Additionally, adequate hydration is essential; The recommended total daily fluid intake of 3,000 ml for men and of 2,200 ml for women which may help in fiber work effectively to soften the stool.[2] Regular exercise enhances gastrointestinal motility, reducing the likelihood of constipation and associated complications. Ayurveda focuses on lifestyle modifications (Pathya Ahara and Vihara) to stay healthy and manage the diseases effectively. The integration of these changes into daily routines improves long-term health outcomes. This conceptual study is an attempt to throw light on the importance of lifestyle modifications in anorectal disorders for prevention, to improve the recovery and reduce the recurrence.

Keywords: Haemorrhoids, Fissure, Fistula, Guda, Arshas, Parikartika, Bhagandara, Pathya, Ahara, Vihara

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| Shanmugaloga S, Post Graduate Scholar, Department of Shalya Tantra, Government Ayurveda Medical College and Hospital, Bengaluru, Karnataka, India. Email: shanmugaloga96182@gmail.com | Shilpa PN, Shanmugaloga S, <i>Lifestyle Modifications in Anorectal Disorders: A Review</i> . J Ayu Int Med Sci. 2025;10(2):193-204. Available From https://jaims.in/jaims/article/view/4054/ | |

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Introduction

Ayurveda is holistic science that aims to promote and preserve the health of the individual and to cure the diseases. *Acharyas* have explained the importance of *Pathya* and *Apathya* along with treatment modality to acquire complete relief. *Pathya* is *Hita* (non-conductive) to body and mind; whereas *Apathya* is *Ahita* (conductive) to body and mind.[3] *Acharya Sushruta* has dedicated a Chapter- named *Hitaahitiyam Adhyayam* which explains about the general as well as disease specific regimens with its influence on the health.[4]

Adopting the dietary and lifestyle regimes will speed up the recovery and improve the effectiveness of treatment. Anorectal disorders, including haemorrhoids, anal fistulae, anal fissures, anorectal abscesses, and rectal carcinoma, represent significant health concerns worldwide. Their incidence and prevalence vary by region, influenced by factors such as lifestyle, diet, and healthcare access. Lifestyle modifications are essential for promoting health and preventing various disorders, particularly in the context of anorectal health. The gut microbiome plays a crucial role in maintaining overall health and especially preventing anorectal conditions. A balanced gut microbiota contributes to the prevention of such disorders.

Table 1: Showing the Global and National Prevalence[5]

| Anorectal disorders | Global prevalence | Prevalence in India |
|---------------------|--------------------|---------------------|
| Haemorrhoids | 4.4 to 48% | 25 to 49 % |
| Anal fissures | 10 to 15% | 18% |
| Fistula in Ano | 1 to 2% | 30% |
| Anorectal Abscess | 0.5 to 2% | 30% |
| Rectal CA | Approximately 1.5% | 5-6% |

Aims and Objectives

1. To advocate importance of *Pathya* (diet & lifestyle modifications) in accordance to anorectal disorders.
2. To provide a comprehensive overview on specific lifestyle changes to manage anorectal diseases.
3. To educate the patients on dietary and lifestyle adjustments to effectively get relieved from symptoms.

Materials and Methods

Sushruta Samhita (Su. Ni. 2, 4), (Su. Chi 6, 8, 33,34,38)

Charaka Samhita (Cha. Chi.12,14) (Cha. Si. 6, 7)
Ashtanga Hridaya (Ah. Ni. 7, 8,) (Ah. Chi. 8), (Ah. Kalpa-Si. 3, 5)

A comprehensive literature search was conducted using databases such as PubMed, Scopus, and Google Scholar to identify peer-reviewed articles related to lifestyle modifications in anorectal disorders.

The search utilized keywords and phrases including "anorectal disorders," "lifestyle modifications," "dietary factors," "haemorrhoids," "anal fissures," and "fistula."

Importance of Fiber For Gut Health[6]:

Dietary fiber, defined as "the remnant of plant components that are resistant to hydrolysis by human alimentary enzymes" is a class of non-digestible carbohydrates resistant to gastric acids and hydrolysis by digestive enzymes, while "functional" fiber is defined as isolated, non-digestible carbohydrates that have beneficial physiological effects in humans.

In the colon, fiber may be fermented by the microbiota, with production of gas (CO₂, CH₄, H₂) and short chain fatty acids (SCFAs), i.e., butyrate, acetate, and propionate, which create osmotic load, accelerating intestinal transit. Moreover, butyrate, which is an important source of energy for the colonic mucosa, also acts at the level of the neurons of the myenteric plexus, increasing gut motility. Fiber can retain water, increasing the hydration of the stool. A normal stool contains 74% of water, whereas a hard stool has less than 72% and a soft stool at least 76%. Therefore, a percentage of as little as 2% in water content can make a difference to stool form. This small variation in consistency allows the stool to be more rapidly moved distally by the peristaltic waves of the colon and more easily evacuated. The peristaltic waves differ according to their amplitude and frequency.

Gut Microbiome Focus[7]:

A healthy gut microbiome supports the integrity of the intestinal barrier and function, preventing increased permeability (often referred to as "leaky gut"). Dysbiosis, or an imbalance in gut bacteria, has been linked to several gastrointestinal disorders. When this balance is disrupted, it can lead to inflammation and increased susceptibility to anorectal disorders.

Probiotics can help strengthen tight junctions between intestinal cells, thus enhancing barrier function & reducing risk of inflammatory conditions. Gut microbiome influences immune responses within gastrointestinal tract. Balanced microbiota can modulate immune function, reducing chronic inflammation & cuts chain of pathogenesis. For instance, certain bacterial metabolites like short-chain fatty acids (SCFAs) produced by fiber fermentation have anti-inflammatory properties that can protect against colorectal cancer.

Koshtha & Agni[8]:

Koshtha is expression of bowel habit, which depends on *Prakriti* (constitution). It is important site for digestion. All three *Doshas* and their subtypes play pivotal role in maintaining physiology of *Koshtha*. The *Prana Vayu* propels timely administered food to *Koshtha*. The *Bodhaka Kapha* in oral cavity senses taste and *Kledaka Kapha* moistens food, subjecting it to digestion. Further, *Pachaka Pitta* and *Samana Vayu* lead role and helps in formation of digested material into *Saara* (essence) and *Kitta* (waste). *Samana Vayu* is important in breaking down moistened food into small particles for easy digestion by *Pachaka Pitta*. Further, wastes of food are expelled by *Apana Vayu*. The essence is circulated by *Vyana Vayu*. Hence, proper functioning of all three are necessary to maintain equilibrium in *Koshtha*. In transient stages of digestion (*Avasthapaka*) *Dosha* are nourished in their respective abodes. *Kapha*, *Pitta*, and *Vata* in *Amashaya* (upper gastrointestinal tract with stomach), *Pachyamanashaya* (small intestine) and *Pakvashaya* (large intestine) respectively. These parts of *Koshtha* are primary seats of corresponding *Dosha*. *Grahani* (lower part of stomach and duodenum) and *Agni* (factors responsible for digestion and metabolism) are most important structural and functional components of *Koshtha* respectively. *Grahani* holds undigested food till completion of digestion.

It is part of *Koshtha* that forms substratum for *Agni*. The nature of *Grahani* is crucial in deciding nature of *Koshtha*. When *Grahani* is unable to retain food till proper digestion or when *Agni* (digestive power) is *Manda* (weak) that it is unable to facilitate proper digestion, result is *Ama* (improperly formed metabolites) leading to *Vyadhi* (diseases). *Guda* is one among *Koshthangas*. Hence changes caused by *Ahara*(food), *Vihara* (activities) and *Manasikaja* (mind induced) will impair gut health, resulting in *Gudagata Vyadhis* (anorectal disorders).

Factors Hampering The Gut Health[9]:

Gut is a highly dynamic system characterized by interaction with both intrinsic and extrinsic factors. Among extrinsic factors, food, regimen, region, and season, and among internal factors, physical constitution, age, and psyche are most crucial ones. All these factors directly or indirectly influence digestion and metabolism (*Agni*), both at gut level and at tissue level. All these effects culminate at endpoint called '*Ojas*' or '*Bala*' that is product of total metabolic activities happening in living body. [Su.Sa. Sutra Sthana 15/19] The *Koshtha* (nature of gut) is decided by *Prakruti* (physical constitution) of individual.

Table 2: Showing the relation of *Prakruti* with *Koshtha* and *Agni*[10]

| Prakruti | Agni | Koshtha |
|----------------|---------------------|---------------------|
| Vata Pradhana | Vishama (Irregular) | Krura (Hard bowels) |
| Pitta Pradhana | Tikshna (Strong) | Mrdu (Soft bowels) |
| Kapha Pradhana | Manda (weak) | Madyama (normal) |

While explaining *Nidana* (causative factors) during pathogenesis of a *Vyadhi* (disease), *Acharyas* have categorized them into *Aharaja* (food specific), *Viharaja* (activities related) and *Manasika* (mental health specific). Through this we can interpret that what we consume, do and think can attribute to our overall health. Also, *Ayurveda* explains that avoiding *Nidana* (causative factors) itself is first step of treating disorders.

Table 3: Showing the *Nidana* (causative factors) of the *Gudagata Vyadhi*

| Nidana | Aharaja | Viharaja | Manasika |
|--------|---|---|----------------------------------|
| Arshas | Adhyashana Alpamatra Vishamashana Guru Ahara Ati Madhura, Amla, Lavana Yukta Ahara Ati Ushna, Snigdha, Ruksha Ahara Abishyandi and Vidahi Ahara Viruda Dhanya, Shuka Shanya, Shamidhanya | Diwaswapna Katina Asana Udbhrantha Yana Vegadharana Vega Udhirana Garbha Peedana Vishama Prasooti | Krodha Atichintana Irshyam |

| Nidana | Aharaaja | Viharaja | Manasika |
|---------------|---|---|---|
| Bhagandara | Vata Prakopa Ahara Krimi Bhakshana Kashaya Rasa Sevana Ruksha Ahara Mithya Ahara Sevana Asthi Yukta Ahara Sevana | Vata Prakopa Vihara Utkatakasana Ati Pravahana Atikshanana Atimaitunam Horse Riding Elephant Riding | Krodha Kama |
| Guda Bhramsha | Vataprakopaka Aharas Apathya Sevana Ruksha Ahara | Vataprakopaka Viharas Pravahana Durbala | Shoka Bhaya Krodha Atichinta which can aggravate Vata |
| Parikartika | Katu And Lavana Ahara Ati Snigdha Ahara Viruddha Ahara Adhyashana | Anidrata Ratrijagarana Ativyayama Pravahana Utkatakasana Prishtayana Vegadharana | Shoka Bhaya Krodha Atichinta which can aggravate Vata |

Swasthasya Swashtya Rakshanam:

"Swasthasya Swashtya Rakshanam

Aturasya Vikara Prashamanam Cha ||"

Cha.Su.30/26

"Prevention Is Better Than Cure" is the goal of *Ayurveda*. It puts forth the ways to maintain the optimal health of the individual through *Dinacharya* (daily regimen), *Ritucharya* (seasonal regimen), *Sadvrittis* (codes of conduct), *Trayopasthambas* (three pillars of life), *Samshodhana* (cleansing procedures), *Rasayana* (rejuvenation).

Trayopasthambas[11]:

TRAYOPASTHAMBAS



■ AHARA ■ NIDRA ■ VIHARA

The three *Upasthambas* are *Aahaara* (Food), *Nidraa* (Sleep), and *Brahmacharya* (Celibacy). In this context *Brahmacharyam* can be considered as exercise (*vihara*), which helps us to stay fit and healthy.

The three *Upastanbhas* outlines their role in physical as well as mental health, if taken in balanced proportions. The integration of dietary changes (*Ahara*), physical activity (*Vihara*), and adequate sleep (*Nidra*), can significantly enhance overall well-being and mitigate the risk of anorectal conditions.

Aharasayanabrahmacharyamyuktya Prayojitaihi |

Shariram Dharyate Nityamagarmiva Dharanaihi: ||

Ah.Su.7/52

Ahara (Food) and Mental Health:

Ayurveda emphasized that root of living is *Ahara*, which is "*Mahabhaisajyam*" (best medicine). Acharya Susrutha has stated *Ahara* as one of potent ways of controlling disease. Ayurveda insists that *Ahara* should be consumed in accordance with *Prakriti* (constitution) of individuals. *Pathya Ahara* (Wholesome food) as per Ayurveda is conducive for maintenance of good health, longevity, strength, intellect, good voice and complexion. For a disease-free life, Ayurveda emphasizes on importance of proper nutrition through intake of food by appropriate food choices, food combination, and cooking methods, in right quantity which gets digested as well as metabolised in time. The food ingested is transformed to three categories after digestion, namely *Sthoola* (gross), *Sookshma* (subtle) and *Mala* (waste product).[12] The *Sthoola* (gross) part nourishes body tissue (*Dhatu*) and *Sookshma* (subtle part) nourishes mind while *Malas* (waste products) are excreted. Thus, mind is influenced by food taken. While describing nutritional properties of various foods, *Ayurveda* texts use several terms pertaining to impact at mental level. Some of these terms are described below with examples.[13]

1. *Tandraakara* - causes lassitude, weariness e.g. Palm fruit.
2. *Indriya Tarpaka* - Refreshing to the sense organs e.g. Ghee prepared of cow's milk
3. *Hridya / Mana* - Beneficial to the mind e.g. Date palm
4. *Madakara* - Causes intoxication e.g. Palmyra ripe fruit juice, coconut.
5. *Medhya* - Improves intellect e.g. Garlic, black cumin
6. *Mohakara* - Causes unconsciousness, instability, confusion e.g. Betel nut, wine
7. *Nidraajananam* - Induces sleep e.g. Brinjal, buffalo milk
8. *Buddhivardhaka* - Increases intellect e.g. Cow's milk, gooseberry.
9. *Smritivardaka* - Increases memory e.g. Ghee, Braahmi

Nidraa (Sleep):

The second factor helpful to replenish depleted body constituents is sleep.

Nidrayatam Sukham Dukham Pushti Karshyam | Vrishata Klibata Jnanam Ajnanam Jivitam Na Cha || Akala Atiprasangascha Na Cha Nidra Nishevita | Sukhayushi Parakuryat Kalaratrivapara || Sa Eva Yuktya Punaryumke Nidra Deham Sukhayusha | Purusham Yoginam Siddhya Satya Buddhirivagata ||

(Ch.Su.21/37; A.S.Su. 9/23; A.H.Su. 7/54)

If proper *Nidra* (sleep) is habituated, a person receives the boon of being *Aarogya* (healthy), increased physical strength, proper utilisation of *Indriyas* (senses) and maintenance of increased life span. On the other hand, if *Nidra* is not proper, different types of diseases, emaciation, decreased physical strength, sterility, and difficulty in orientation occurs. Lack of sleep is closely linked to mood disorders. Sleep deprivation can lead to irritability, increased stress responses, and a higher likelihood of experiencing anxiety and depression.

Individuals often report feeling more emotionally volatile and less able to cope with daily stressors when sleep is compromised. This emotional dysregulation can create a cycle where poor sleep exacerbates emotional issues, leading to further sleep disturbances. Disturbed sleep significantly impacts gut health and bowel function, creating a complex interplay between sleep quality and gastrointestinal (GI) well-being.

Disturbed sleep is linked to the following clinical conditions:[14]

A. Gastroesophageal reflux disease (GERD) - Sleep deprivation can worsen reflux symptoms by impairing the body's ability to clear acid from the esophagus during sleep.

B. Altered gastrointestinal motility - it slows down gastrointestinal transit time, leading to constipation or irregular bowel movements. Conversely, it may also trigger episodes of diarrhoea due to increased stress responses.

Effects on Gut Health[15]:

A) Increased Intestinal Permeability: Lack of sleep can lead to higher levels of cortisol, a stress hormone that disrupts the gut lining's integrity. This disruption can result in **intestinal permeability**, often referred to as "leaky gut," where toxins and undigested food particles pass into the bloodstream. Symptoms include bloating, abdominal pain, and food sensitivities.

B) Gut Microbiome Imbalance: Sleep disturbances can alter the composition of gut bacteria, leading to dysbiosis - an imbalance between beneficial and harmful bacteria. Research shows that sleep deprivation can decrease beneficial bacteria like Bacteroidetes while increasing Firmicutes, which may contribute to obesity and metabolic disorders. A diverse microbiome is linked to better sleep quality, indicating that poor sleep can create a vicious cycle affecting both gut health and sleep patterns

C) Inflammation of the Gut Lining: Studies indicate that inadequate sleep can increase pro-inflammatory markers in the body, exacerbating inflammation in the gut lining. This inflammation is associated with conditions such as inflammatory bowel disease (IBD) and irritable bowel syndrome (IBS), leading to symptoms like chronic diarrhoea, constipation, and abdominal discomfort.

D) Dietary Choices and Eating Patterns: Lack of sleep influences hormones that regulate hunger, such as ghrelin and leptin. Sleep-deprived individuals often experience increased appetite and cravings for unhealthy foods high in sugar and fat. These dietary choices can negatively impact gut health by promoting the growth of harmful bacteria and worsening digestive symptoms.

Prioritizing good sleep hygiene may improve both sleep quality and gut health, contributing to overall well-being.

Pathya and Apathya : Disease Specific

“When diet is wrong, medicine is of no use. When diet is correct, medicine is of no need.”

Ayurveda posits that diet is foundational to health; when dietary choices are misaligned with an individual's needs, even the most potent medicines may fail to yield desired results. But at the same time consuming a balanced, healthy and wholesome diet ensures the overall well-being.

Arshas (Haemorrhoids)[16]:

| Pathya | Apathya |
|------------------------------------|---|
| Ahara: | |
| Shali (Oryza sativa) | Katu Rasa (Spicy foods) |
| Yava (barley) | Ati Snigdha (Fried foods) |
| Godhuma (wheat) | Vishamasana Junk foods |
| Mudga (green gram) | Masha (black gram) |
| Ghrita (ghee) | Maida products |
| Ajadugdha (goat milk) | |
| Navanita (butter) | |
| Patola (gourd) | |
| Vastuka (spinach) | |
| Tanduliyaka (amaranth) | |
| Divanti (Leptadenia reticulata) | |
| Upodika (Basella alba) | |
| Asvabala (Indian ginseng) | |
| Mulaka (radish) | |
| Haritaki (Terminalia chebula) | |
| Amalaki (amla) | |
| Dadima (pomegranate) | |
| Kutaja (Holarrhena antidysentrica) | |
| Bhallataka (Semecarpus anacardium) | |
| Surana kanda (Yam) | |
| Palandu (onion) | |
| Lashuna (Garlic) | |
| Shaaka (greens) | |
| Takra (buttermilk) | |
| Ikshurasa (sugarcane juice) | |
| VIHARA: | |
| Avagaha Sweda (tub bath) | Katina Utkatakasana (squatting with strain) |
| | Vishama Utkatakasana (sitting for long period and sitting unevenly) |
| | Prstayana (riding) |
| | Vega Dharana (suppression of natural urges) |
| | Shita Ambu Prayoga (cold water) |
| | Atipravahanam (straining during defaecation) |

Bhagandara (Anal Fistula)[17]:

| Pathya | Apathya |
|--------------------------|---|
| Ahara: | |
| Shali (Red rice) | Guru Ahara (foods which are heavy to digest) |
| Mudga (Green gram) | |
| Yusha (rice gruel) | |
| Alabu (bottle gourd) | |
| Shigru (drumstick) | |
| Mulaka (radish) | |
| Tila (Sesame) | |
| Sarshapa (mustard) | |
| Ghrita (ghee) | |
| Madhu (honey) | |
| Vihara: | |
| Avagaha Sweda (tub bath) | Ati Vyayama (excessive physical exercise) |
| | Maithuna (intercourse) |
| | Prstayana (riding) |
| | Kopam (anger) |
| | Katina Utkatakasana (squatting with strain) |
| | Vishama Utkatakasana (sitting for long period and sitting unevenly) |

Parikartika (Anal Fissure)[18]:

| Pathya | Apathya |
|-----------------------------|--|
| Ahara: | |
| Rakta Shali (red rice) | Ati Lavana (salty food) |
| Yava (barley) | Ruksha Ahara (dry foods) |
| Kulattha (horse gram) | |
| Shaka (greens & vegetables) | Vidahi & Katu Ahara (spicy foods) |
| Mulaka (radish) | Sheeta Annapana (cold beverages) |
| Urvaruka (cucumber) | |
| Ghrita (ghee) | |
| Takra (buttermilk) | |
| Vihara: | |
| Avagaha Sweda (sitz bath) | Ati Pravahana (straining during defaecation) |
| | Ati Vyayama (excessive physical exercise) |
| | Maithuna (intercourse) |
| | Prstayana (riding) |
| | Kopam (anger) |

Prebiotics and Probiotics[20],[21]:

Prebiotics are non-digestible food components that selectively stimulate growth and activity of beneficial microorganisms in gut, conferring various health benefits. Concept was introduced in 1995 by researchers Glenn Gibson and Marcel Roberfroid, who defined prebiotics as substances that improve host health by promoting specific beneficial bacteria, particularly in colon. A prebiotic is defined as “a substrate that is selectively utilized by host microorganisms conferring a health benefit”.

Probiotic, any of various live microorganisms, typically bacteria or yeast, that are ingested or otherwise administ. as means of potentially aiding prevention & treatment of gastrointestinal disorders.

They helps in digestion as well as immune function, emerged in early 20th century with work of Russian-born zoologist & microbiologist Élie Metchnikoff.

Guda Bhramsha (Rectal Prolapse)[19]:

| Pathya | Apathya |
|------------------------------------|---|
| Ahara: | |
| Shali (Oryza sativa) | Katu Rasa (Spicy foods) |
| Yava (barley) | Ati Snigdha (Fried foods) |
| Godhuma (wheat) | Vishamasana (Junk foods) |
| Ghrita (ghee) | Maida products |
| Ajadugdha (goat milk) | Masha (black gram) |
| Navanita (butter) | |
| Patola (ridge gourd) | |
| Vastuka (spinach) | |
| Tanduliyaka (amaranth) | |
| Divanti (Leptadenia reticulata) | |
| Upodika (Basella alba) | |
| Asvabala (Indian ginseng) | |
| Mulaka (radish) | |
| Haritaki (Terminalia chebula) | |
| Amalaki (amla) | |
| Dadima (pomegranate) | |
| Kutaja (Holarrhena antidysentrica) | |
| Bhallataka (Semecarpus anacardium) | |
| Surana Kanda (Yam) | |
| Palandu (onion) | |
| Takra (buttermilk) | |
| Nimba Yusha (neem soup) | |
| Vihara: | |
| Avagaha Sweda (sitz bath) | Ati Pravahana (straining during defaecation) |
| | Ati Vyayama (excessive physical exercise) |
| | Maithuna (intercourse) |
| | Prstayana (riding) |
| | Vega Dharana (suppression of natural urges) |
| | Katina Utkatakasana (squatting with strain) |
| | Vishama Utkatakasana (sitting for long period and sitting unevenly) |

Table 4: Showing the prebiotics and probiotics rich foods

| Category | Prebiotics | Probiotics |
|-------------------|---|---|
| Fruits | Bananas, Custard apples, Watermelon, Grapefruit | Coconut, kokum fruit, |
| Vegetables | Chicory, Jerusalem artichokes, Garlic, Onions, Asparagus, Leeks, Dandelion greens | Carrot, beetroots, |
| Greens | Cabbage, Raw leafy greens (e.g., dandelion) | Fermented greens (e.g., pickled vegetables) |
| Dry fruits & nuts | Almonds, Pistachio nuts | - |
| Other | Whole grains (e.g., oats, barley), Legumes (e.g., chickpeas, lentils) | Yogurt, buttermilk, fermented rice, kanji, Miso, Tempeh |

Takra Prayoga[22]:

Takra (buttermilk) is recognized as a potent probiotic food that offers numerous health benefits, particularly for digestive health.

Takra - curd prepared by churning with water- 1/4th of the quantity of curds.

Gunas of Takra:

It is *Kashaya-Amla Rasa Yukta* (sour & astringent in taste), *Madhuravipaka* (attains sweet taste at the end of digestion), *Ushnaveerya* (hot in potency), *Deepana* (increases appetite), *Laghu* (light for digestion), *Preenanam* (replenishing), *Vrushya* (aphrodisiac) & *Vatanashaka* (destroys Vata).[23]

Probiotic Properties:

1. Rich Source of Probiotics: Buttermilk is fermented with beneficial bacteria such as *Lactobacillus acidophilus* and *Lactobacillus bulgaricus*, which help maintain a healthy gut microbiome. These probiotics promote digestion, enhance nutrient absorption, and prevent the growth of harmful microorganisms in the digestive tract, thereby protects the gut health.

2. Digestive Aid: Regular consumption of buttermilk can alleviate symptoms like indigestion, bloating, and constipation. Its probiotics support smoother digestion and help restore balance in the gut, making it particularly effective after meals.

Importance of Takrapana:

Doshagnibalatrividham Tat Prayojayet | Hatani Na Virohanti Takrena Gudajani Tu ||

Bhumavapi Nisiktam Taddeha Takram Trnolupam | Kim Punardiptakayagnehe Sushkanyarshamsi Dehinaha || Cha. Chi.14/75-76

Acharya Charaka says that *Arshas* (Haemorrhoids) once destroyed by buttermilk do not recur.

- *Amlatakra* (buttermilk) with *Shunti* (dry ginger) and *Saindhava* - mitigates *Vata Dosha*.
- *Amlatakra* (buttermilk) with *Sita* (sugar) - mitigates *Pitta Dosha*.
- *Amlatakra* (buttermilk) with *Vyosha* (dry ginger) and *Kshara* (alkali) - mitigates *Kapha Dosha*.

The use of probiotics (live beneficial bacteria) and prebiotics (substances that promote the growth of beneficial bacteria) can help restore microbial balance. Probiotics have been shown to enhance gut barrier function, reduce inflammation,

And prevent pathogen colonization, thereby lowering the risk of conditions like haemorrhoids and anal fissures. Specific strains such as Lactobacillus and Bifidobacterium have demonstrated efficacy in improving gut health.

| Nutritional value per 100 g (3.5 oz)[24] | |
|--|---------------------|
| Energy | 169 kJ (40 kcal) |
| Carbohydrates | 4.8 g |
| Fat | 0.9 g |
| Protein | 3.3 g |
| Minerals | 12% |
| Calcium | 116 mg |
| Units | |
| ug = micrograms, mg = milligrams, IU = International units | |
| Percentages are roughly approximated using US recommendations for adults | |

Exercise and Asanas:

Regular exercise is critical for promoting gastrointestinal motility and overall health. Engaging in moderate physical activity not only helps maintain a healthy weight but also reduces the risk of developing chronic conditions associated with sedentary lifestyles. Exercise has been shown to improve mood and reduce stress, further contributing to better digestive health.

*Laghavam Karmasamarthyam Diptagnermedasa
Kshayaha | Vibhakta Ghanagaatratvam
Vyayamaatupajaayate || Ah.Su.2/10*

Practising physical exercise renders the body light and efficient in activities, improves digestive power, wanes obesity, renders finely chiseled contours and consistent body structures.



Figure 1: Malasana



Figure 2: Pawanmuktasana



Figure 3: Paschimotrasana



Figure 4: Dhanurasana



Figure 5: Shalabhasana



Figure 6: Ardha Matsyendriya Asana

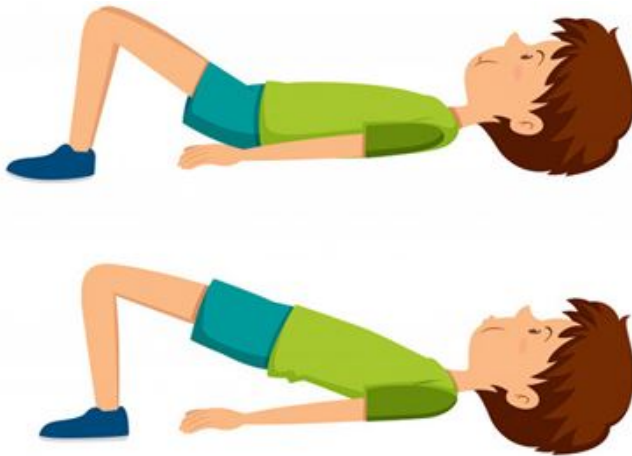


Figure 7: Kegel exercise to strengthen pelvic floor and prevent anal incontinence & organ prolapse

Stress Management:

Mental stress has been shown to elevate anal pressures, particularly in individuals with defecatory disorders. This increase is likely due to the contraction of the internal anal sphincter, which can exacerbate conditions like anal fissures and haemorrhoids. Relaxation techniques, in contrast, have been found to reduce anal pressure, suggesting that managing stress can alleviate symptoms in affected individuals. Chronic stress is associated with higher levels of anxiety and depression, which are prevalent in patients with chronic anal fissures (CAF) and functional anorectal pain (FAP). Studies indicate that patients with CAF report significantly higher stress levels compared to healthy controls, with stress acting as both a triggering and exacerbating factor for their condition.[25]

The gut-brain axis plays a crucial role in how stress affects gastrointestinal health. Stress can alter gut motility and microbiome composition, potentially leading to conditions like irritable bowel syndrome (IBS).[26] Stress can enhance the perception of pain through mechanisms involving central nervous system sensitization. Patients with functional anorectal pain often report heightened sensitivity to pain stimuli, which may be aggravated by psychological factors such as stress and anxiety. This heightened sensitivity complicates treatment outcomes and may necessitate a multidisciplinary approach that includes psychological support.

Toilet Habits and Ergonomics:

Regular toilet habits help train the body to recognize when it is time to have a bowel movement. Responding promptly to the urge to defecate is crucial (*Vegaan Na Dharayet*). Ignoring the urges can lead to harder stools and increased difficulty in passing them, ultimately contributing to conditions like haemorrhoids and anal fissures.

Straining during bowel movements can lead to various anorectal disorders. Good toilet habits involve taking the time needed for a comfortable bowel movement without rushing, which helps prevent excessive pressure on the anal region.

Optimal Sitting Position:

Squatting helps straighten the anorectal angle, which facilitates easier passage of stool. This position relaxes the puborectalis muscle, allowing for a more direct route for waste elimination. Studies have shown that individuals using a squatting position can experience quicker and more complete bowel movements compared to sitting toilets.[27]

The traditional sitting position on toilets may not be the most effective for everyone especially the older adults. If in a western commode, elevating the feet using a footstool can create a more natural squatting position, which helps align the rectum more favourably for easier stool passage. This position reduces strain and promotes relaxation of the pelvic floor muscles.

Body Mechanics:

Leaning slightly forward while resting forearms on thighs can facilitate relaxation of pelvic floor muscles during bowel movements.

Keeping the mouth relaxed and breathing deeply can also aid in reducing tension.

Posture Adjustments:

Adjusting body posture by lifting heels or using a footstool not only enhances comfort but also improves colonic transit time by allowing gravity to assist in stool movement.

Discussion

Anorectal disorders, significantly impair quality of life and pose substantial health challenges. The management of these conditions often requires a multifaceted approach, including lifestyle modifications that can influence health outcomes and improve overall quality of life. Lifestyle changes such as dietary modifications (high fiber diet), regular exercise, and pelvic floor exercises can alleviate constipation and reduce straining during bowel movements and help manage symptoms effectively. Also, regular physical activity can improve overall bowel function. The psychological impact of anorectal disorders is profound. Patients often experience anxiety, depression, and social isolation due to the stigma associated with these conditions. Lifestyle modifications that promote social engagement and mental well-being such as support groups, counselling can be beneficial

More research is needed to evaluate structured lifestyle intervention programs tailored for patients with anorectal disorders. This includes studying the efficacy of dietary changes, exercise regimens, and behavioural therapies in improving clinical outcomes and quality of life.

Collaboration among gastroenterologists, dietitians, psychologists, and physiotherapists is essential for developing holistic treatment plans. Future research should aim to establish standardized protocols that integrate these disciplines to optimize patient care.

Conclusion

Lifestyle modifications play a crucial role in managing anorectal disorders, significantly impacting health and quality of life. As research progresses, a focus on innovative technologies, comprehensive interventions, and multidisciplinary approaches will enhance our understanding and treatment of these complex conditions.

Future studies are vital for establishing best practices that could help identify which interventions yield the most significant benefits over time, empowering patients and improve their overall well-being.

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