



Efficacy of Pykure Capsule in Management of Haemorrhoids

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Abstract This study investigates the management of haemorrhoids of poly herbal formulation Pykure capsule which contains Mesua ferrea, Cuminum cyminum, Saraca indica, Red ochre, Picrohiza kurroa, Terminalia Chubularetus, Azadirachta indica, Abutilan indicum, Alowas. The formulation Pykure capsule has been found to be an effective drug in anorectal disorders. The result in the trial group has shown encouraging results after 6 weeks of treatment. After 90 days of treatment along with the improvements of the subjective criteria's significant response was also noticed. The active bleeding was found to be absolutely control by 8 weeks in 79% of the cases while 21% cases continued bleeding off and on and the size of pile mass was found to be reduced.

Keywords Pykure Capsule, Haemorrhoids, Management

Introduction

Accurately determining the prevalence of haemorrhoids is challenging due to the fact that people with any anorectal symptoms often feel they have this ailment. Hence, the final determination and treatment genuinely necessitate the expertise of a seasoned clinician. Formulating a clear definition of haemorrhoids has been challenging, mostly due to the mysterious nature of the condition's etiology. The term "haemorrhoid" is derived from the Greek adjective "haemorrhoids," which combines the words "haima" meaning "blood" and "rhoos" meaning "flowing" [1]. Haemorrhoids, as a medical condition, have been documented to affect humanity since ancient times. According to data from the National Centre for Health Statistics, it is estimated that around 10 million individuals in the United States are afflicted with haemorrhoids [2].

Anatomy

Thomson [3] states that the submucosa in the anal canal does not create a continuous ring of thicker tissue, but instead forms a series of vascular cushions that are not connected. The three primary cushions are located in the left lateral, right anterior, and right posterior locations. The submucosal layer of these cushions contains a high level of blood vessels and muscular fibers. The *muscularis submucosae ani* originates from the internal sphincter and the conjoined longitudinal muscle. Its main function is to ensure the attachment of the mucosal and submucosal tissues to the internal sphincter and the blood vessels of the submucosa. The anal canal may be safeguarded from harm by these vascular cushions, which become engorged with blood during faeces.

Physiology

Vascular cushions in the anal canal experience venous distension, erosion, haemorrhage, and thrombosis due to the degeneration of supporting tissue. Various theories have been proposed to explain the cause of haemorrhoids; yet, the exact origin of haemorrhoids remains uncertain. Several explanations for haemorrhoids include venous



obstruction caused by congestion and hypertrophy of the anal cushions, prolapse or downward displacement of the anal cushions, destruction of anchoring connective tissue, and abnormal dilation of the veins in the internal haemorrhoidal plexus. Additional factors, including genetics, age, anal sphincter strength, dietary habits, occupation, constipation, and pregnancy, have also been linked to the development of haemorrhoids [4,7].

Classification

Haemorrhoids are categorized based on their position and the extent of their protrusion. The dentate line demarcates the boundary between internal and external haemorrhoids. Internal haemorrhoids develop above the dentate line, originating from the superior haemorrhoidal plexus, and are covered by mucosa. In contrast, external haemorrhoids are situated beyond the dentate line, originate from the inferior haemorrhoidal plexus, and are coated with squamous epithelium. Mixed haemorrhoids, which are both internal and external, occur both above and below the dentate line. They originate from the superior and inferior haemorrhoidal plexus and their anastomotic connections.

Haemorrhoids are classified based on the extent of prolapse using the following grading system [4–7]:

First degree haemorrhoids refer to cushions situated above the pectinate line that do not descend after straining. Typically, they are linked to bleeding during stool excretion.

Second degree haemorrhoids are characterized by cushions that extend below the pectinate line while straining, but retract back into the anal canal after straining ceases.

Third degree haemorrhoids refer to cushions that bulge outwards from the anal canal after straining or bowel movements and need to be manually pushed back into place.

Fourth degree haemorrhoids refer to cushions that cannot be reduced and consistently protrude regardless of straining or bowel movements.

Review of Literature

Mesua ferrea L. is a significant member of the guttiferaceae family. It has been demonstrated to exhibit multiple pharmacological effects. Virtually every component of the plant is purported to possess advantageous therapeutic attributes that can aid in combating various ailments. Traditionally, *M. ferrea* is used as an antipyretic, antimicrobial, anticancer, carminative, cardiotoxic, diuretic, and expectorant. It is utilized in many Ayurvedic preparations, such as Brahma Ramayana and Chyawanprash, as an agent that enhances the immune system. Additionally, it is employed as a botanical supplement for the management of many ailments such as hemorrhoids, respiratory conditions, heart-related issues, intestinal inflammation, excessive dehydration, cephalalgia, involuntary diaphragmatic contractions, pruritus, perspiration, parasitic skin infestations, dermatological disorders, benign neoplasms, and emesis. The application of seed oil poultices or crushed kernels is employed for wound healing, whereas ladies utilize a decoction made from the blossoms and roots after giving birth. Seeds have multiple use as fragrances, heart tonics, expectorants, and wound-healing agents. Dried flowers possess both anti-inflammatory and stomachic effects. Bark is conventionally employed for the management of cough, diarrhea, sore throat, and vomiting. A concoction of desiccated fruits and herbs, combined with clarified butter, is employed to alleviate the sensation of burning in the hands and feet, as well as to alleviate joint discomfort and cold symptoms. *M. ferrea* is a significant component of Indian Siddha medicine (Yelaathi Churanam) and is ingested to internally treat chancres, leprosy, and ulcers. In the Indian system of herbal medicine, it is recommended to combine it with butter and sugar for the treatment of bleeding piles. Jawarish-e-Naaremushk, a different herbal preparation, is recommended for issues related to the liver and intestines. The traditional use of Maharisi amrit kalash-4, an Ayurvedic composition, in India and neighboring countries is to treat cancer, with *M. ferrea* being one of its key ingredients. *M. ferrea* is additionally employed for the management of inflammation and other malignancy-related illnesses. In India, a polyherbal compound called Kanakasava, which includes *M. ferrea*, is traditionally utilized as an anti-asthmatic agent [8-13].

Cuminum cyminum exerted antimicrobial, insecticidal, anti-inflammatory, analgesic, antioxidant, anticancer, antidiabetic, antiplatelet aggregation, hypotensive, bronchodilatory, immunological, contraceptive, anti-amyloidogenic, anti-osteoporotic, aldose reductase, alpha-glucosidase and tyrosinase inhibitory effects, protective and central nervous effects [14].



Saraca indica is a medicinal plant widely used in Ayurveda to treat painful conditions, improves complexion of the body, improves digestion and assimilation, alleviates excessive thirst, to kills all infectious agents, in blood disease, inflammation and also as CNS depressant [15].

Picrorhiza kurroa's bark has a bitter taste and is commonly used for its astringent, anthelmintic, demulcent, emollient, and stomachic properties. It is also used in the treatment of blood diseases, biliousness, colic, piles, ulcers, fractures, menorrhagia, metropathy, dyspepsia, and visceromegaly. Leaves have medicinal properties that can be beneficial in treating stomach pain, while flowers are effective in treating conditions related to an excessive amount of pitta, such as syphilis, excessive thirst, inflammation, diarrhea, hemorrhoids, and scabies in children [16-18]. The stem bark of Saraca indica possesses astringent, antileucorrhoeic, antibilious, and uterine sedative properties. The blooms of this plant are traditionally employed as a uterine tonic, antidiabetic, and antisiphilitic. The plant is crucial for its central nervous system (CNS) depressing activity, with the aerial component being particularly significant for its CNS active, hypothermic, CNS depressant, and diuretic effects [19,20]. Rhizome of Picrorhiza kurroa is utilized for treating hypertension, abdominal discomfort, ocular ailments, gastritis, biliary disorders, and pharyngitis. It facilitates the secretion of bile from the gall bladder, enhances stomach action, and acts as a laxative. In Nepal, the rhizomes of this plant are extensively utilized by both experts trained in the Tibetan medical system and non-experts for the treatment of many ailments such as cough, cold, skin illness, fever, indigestion, liver disease, jaundice, hepatitis, scorpion stings, and metabolic problems [21-23].

Terminalia Chebula is an important constituent of an herbal formulation, contains the name TRIPHALA which is very popular traditional medicine for chronic disorder like diabetes, nervine disorder and epilepsy. The plant has been reported to possess various pleiotropic effects such as antioxidant, antidiabetic, renoprotective, hepatoprotective, immunomodulator and prokinetic effect. T. chebula's dried mature fruit is a significant Indian herb, widely utilized in the indigenous Ayurvedic medicinal system for its homeostatic, antitussive, laxative, diuretic, and cardiogenic properties [24]. Dried fruits are a significant source of vegetable tanning materials and have a long history of use in India [24, 25]. In the Ayurvedic system of medicine, the herb is utilized as a tonic and for treating hepatic and spleen enlargements, as well as skin problems [26]. The mixture of this substance with water has been discovered to possess anti-inflammatory and analgesic properties, as well as the ability to cleanse and promote the healing of wounds. These substances are utilized as astringents for treating hemorrhoids, as documented in references 26 and 27. The powder possesses excellent astringent properties and can be used as a dentifrice to treat loose gums, bleeding, and gum ulcers. The chebulic acid derived from the fruit of Terminalia chebula exhibits antispasmodic properties similar to those of Papaverine. Enhancing the appetite can be beneficial as a digestive aid. It functions as a gentle laxative and a mild herbal colon cleanser [26, 29]. It enhances the sensory perception of the five senses. The infusion is employed as a gargle for persistent cough and inflamed throat. This treatment is beneficial for the symptoms of dysuria and urinary retention. It is beneficial in skin conditions characterized by discharges, such as allergies and other erythematous illnesses [27]. It mitigates the adverse consequences of consuming high-fat, creamy, and fatty cuisine. In addition, studies have shown that the extract of T. chebula can be used as a complementary treatment to cholesterol normalizing medicines [28, 30]. These studies have also indicated that the extract has the ability to inhibit salivary bacteria and may have promise as an anti-caries agent. Terminalia is employed in Ayurveda and Siddha to treat a variety of conditions including constipation, chronic diarrhea, ulcers, gastroenteritis, asthma, cough, difficulty breathing, indigestion, hemorrhoids, candidiasis, parasitic infections, malabsorption syndrome, enlarged liver, kidney stones, urinary discharge, tumors, skin diseases, memory loss, epilepsy, diabetes, cardiovascular disease, loss of appetite, and wounds [29]. Additionally, it is documented to exhibit antibacterial, antifungal, antiviral, anticarcinogenic, antioxidant, cardioprotective, antidiabetic, and wound healing properties. Triphala is a widely used medication for chronic conditions such as diabetes, nervous system disorders, and epilepsy [31]. Triphala is a blend of three tropical fruits: Terminalia chebula, Emblica officinalis, and Terminalia bellerica. It effectively supports internal purification and enhances digestion and assimilation in all cases of stagnation [32]. Terminalia chebula is a constituent of the polyherbal mixture called "Geriforte," which is an Ayurvedic Rasayana noted for enhancing both physical and mental well-being and boosting the immune system's ability to withstand various forms of stress [33].



Throughout centuries, every component of *Azadirachta indica* has been utilized for medicinal purposes. Due to its medicinal properties, it has been utilized in Ayurvedic medicine for over 4000 years. The earliest Sanskrit medical texts mention the advantageous properties of *Azadirachta indica*'s fruits, seeds, oil, leaves, roots, and bark. Both have been utilized in Indian Ayurvedic and Unani medicine, and are currently employed in the pharmaceutical and cosmetics sectors. *Azadirachta indica* oil has various applications in pest management, cosmetics, pharmaceuticals, and other fields. *Azadirachta indica* seed cake serves as a natural fertilizer and insecticide. *Azadirachta indica* leaves possess multiple benefits such as alleviating chickenpox, enhancing the body's immune system, reducing malaria-induced fever, treating various foot fungi, combating termites, and relieving neuromuscular pains. *Azadirachta indica* bark and roots have multiple applications, including the management of fleas and ticks on pets, the treatment of various skin infections such as acne, psoriasis, scabies, and eczema. Additionally, *Azadirachta indica* is used in the treatment of diabetes, AIDS, cancer, heart disease, herpes, allergies, ulcers, hepatitis, and various other diseases. *Azadirachta indica* is widely utilized in various Health and Personal Care items, including eczema cream, antiseptic cream, shampoo, hair oils, toothpaste, tea, vegetarian capsules, powders, soaps, insect repellent (spray and lotion), and candles, among others [34, 35].

In conventional medical practices, different components of *Abutilon indicum*, including roots, leaves, flowers, bark, seeds, and stems, have been utilized for their antioxidant, demulcent, laxative, diuretic, analgesic, anti-inflammatory, and antiulcer properties. Traditional practitioners reportedly utilize the leaves as a folk remedy for inflammatory joint disorders. India has also reported the use of psychosomatic medicine for treating scorpion bites. The different components of the *Abutilon indicum* (L.) Sweet plant, including leaves, roots, flowers, seeds, and seed oil, are extensively utilized by diverse tribal communities and forest inhabitants for the remedy of a wide range of illnesses. The plant is well-known in the Siddha systems of medicine for its effectiveness in treating piles, jaundice, leprosy, and ulcers. During the Vedic era, the roots of various plants such as *Atibala* (*A.indicum* Linn.), *Mahabala* (*Sida rhombifolia* Linn.), *Bala* (*Sida cordifolia* Linn.), and *Bhumibala* (*Sida veronicaefolia* Lam) were employed for the purpose of alleviating poison, vata-pitta ailments, cardiac issues, jaundice, ocular disorders, and uterine dysfunctions. The seeds and roots were both utilized in the treatment of fever by preparing a decoction [36-38].

Material and Methods

Composition

Each Pykure Capsule contains the following ingredients

Mesua ferrea:	60 mg	Terminalia Chubularetus:	75 mg
Cuminum cyminum:	37 mg	Azadirachta indica:	143 mg
Saraca indica:	90 mg	Abutilan indicum:	75 mg
Red ochere:	37 mg	Alowas:	173 mg
Picroohiza kurroa:	60 mg		

Aim & Objective

The aim of this study was to evaluate therapeutic value of Pykure Capsule in the patients of Ano-rectal disorders. Present study was undertaken for 22 cases of Haemorrhoids.

Material & Method

22 Patients of Haemorrhoidal disorder were registered for management of the particular condition with Pykure Capsule, Pykure Ointment and Kabzkure Powder. Out of 22 patients, 20 cases completed the full treatment schedule i.e. 90 days while remaining 2 cases left the treatment. However, clinical pattern was studied in all 22 cases for incidence of age, sex, occupation, economical status, educational status, social status and symptoms of piles disorders.



Selection of cases:

All patients selected for study were interrogated and detailed history was recorded on prescribed case history sheet. All patients were thoroughly examined and findings were also recorded for establishing the final diagnosis. Routine examination of blood etc were also done, in addition to the observation of subjective features, clinically.

All patients included in clinical study were carefully examined physically and records were maintained with clinical history. The individuals who have symptoms of ano-rectal disorders with or without rectal bleeding were subjected to clinical trial.

Method of Drug Administration

The Drug Pykure Capsule was administered orally 2 Capsule twice daily after meal for 60 days and then, 1 Capsule twice daily after meal for 30 days. The patients also treated with Pykure Ointment and Kabxkure Powder. Each case was followed up at the interval of 15 days for 90 days.

Clinical Pattern

Present study consists of total 22 registered cases, out of which 2 cases did not complete full course of treatment. So clinical pattern will be discussed on 22 cases, however, results will be analyzed on observations of findings of 20 cases.

Incidence of Diet Habits

Patients included in the present study were found to have both types of diet habits (Veg. & Non-Veg.) which are presented in Table 1.

Table 1: Distribution according to Diet Habits

Sr. No	Diet Habits	Number of Patients	Percentage
1	Non-Vegetarian	10	45.4%
2	Vegetarian	12	54.6%
	Total	22	100.00%

Incidence of Internal and External Hemorrhoids

Patients included in this study had both types of hemorrhoids which are presented in Table 2

Table 2: The incidence of Type of Haemorrhoids

Sr No	Type of Hemorrhoids	Number of Patients	Percentage
1	Internal Hemorrhoids	11	50.0%
2	External Hemorrhoids	6	27.3%
	Both	5	22.7%
	Total	22	100.00%

Other Types of Ano-rectal Disorders

Patients included in this study found to have different types of ano-rectal disorders as presented in Table 3.

Table 3: The different associated Ano-rectal Disorders in 22 patients of Haemorrhoids

S. No	Type of Anorectal disorders	Number of Patients
1	Hemorrhoids	11
2	Fistula in Ano	2
	Fisture in Ano	7
	Fistula c Fisture	2



Results and Observation

In this study 22 patients of haemorrhoids were included, out of which 2 patients discontinued and 20 cases had completed the treatment schedule of 90 days. Patients were observed in terms of subjective criteria before treatment, during treatment and after treatment.

The response of treatment on subjective criteria and observed before and after treatment as presented in Table 4.

Table 4: The response of treatment on subjective features of Ano-rectal disorders.

Sr.No	Symptoms	No.of Patients Before treatment	No. of Patients After treatment			Percentage
			After 1 Month	After 2 Month	After 3 Month	
1	Pain	15	15	10	nil off & 04	100%
2	Bleeding	19	7	8	nil off & 04	78%
3	PruritusAnii	2	2	nil	2	100%
4	Prolapse Pile mass	5	3	2	4	40%
5	Constipation	20	11	5	2	81.80%
6	Mucous discharge	8	2	4		75%

It is revealed from above table that more than 80% of relief was observed in symptoms like pain in rectum, rectal pruritus and constipation. More than 65% of relief was observed in symptoms like rectal bleeding, rectal prolapse and itching.

Conclusion

The formulation Pykure capsule has been found to be an effective drug in anorectal disorders. The result in the trial group has shown encouraging results after 6 weeks of treatment. After 90 days of treatment along with the improvements of the subjective criteria's significant response was also noticed. The active bleeding was found to be absolutely control by 8 weeks in 79% of the cases while 21% cases continued bleeding off and on and the size of pile mass was found to be reduced. Hence Pykure Capsule along with Pykure Ointment and Kabzkure Powder can safely be recommended in bleeding / non bleeding haemorrhoids.

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