Case Series

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EMERGENCY MANAGEMENT OF EXTERNAL PROLAPSED HAEMORRHOIDS BY LEECH THERAPY: EVIDENCE BASED CASE SERIES

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ABSTRACT

External prolapsed haemorrhoid is an acute anorectal condition which often causes significant discomfort and impaired quality of life. In Ayurveda, Acharya Sushruta has advocated the use of Jalaukavacharana (leech therapy) as one of the treatment modalities for the management of Arsha (haemorrhoids). This case series presents three male patients aged 45, 54, and 62 years diagnosed with acute external prolapsed haemorrhoids. Clinical assessment was carried out using the PNR-Bleed classification, Haemorrhoid Severity Score (HSS) and modified Defense and Veterans Pain Rating Scale (DVPRS). All patients underwent leech therapy according to standard protocol, at an interval of 7 days based on severity and clinical assessments were performed on Day 3 and Day 10, followed by a final assessment one week after the last sitting. Supportive oral Ayurvedic medications, including Triphala guggulu, Arogyavardhini vati, and Gandharva haritaki churna, were prescribed throughout the treatment period. Marked symptomatic improvement was observed in all cases, including reduction in pain, bleeding, and prolapse, which is reflected by the progressive decline of PNR-Bleed, HSS scores and DVPR Scale. The findings of this case series highlight the therapeutic potential of leech therapy as a safe, effective, and minimally invasive conservative approach in the management of external prolapsed haemorrhoids. These initial outcomes support its integration into clinical practice for selected cases which are unsuitable for conventional surgical intervention. In order to establish leech therapy as a first line conservative management approach in management of external prolapsed haemorrhoids, exploration through controlled clinical trials with larger sample size are desirable.

Keywords: DVPR Scale, External prolapsed haemorrhoids, Haemorrhoid Severity Score, Jalaukavacharana, Leech therapy, PNR Bleed.

INTRODUCTION

Hemorrhoids are therefore the pathological term to describe the abnormal downward displacement of the anal cushions causing venous dilatation.[1] Wherein, External prolapsed haemorrhoids are vascular cushions located below the dentate line which protrude beyond the anal opening, often leading to acute pain when inflamed or thrombosed. Common symptoms include anal pain, swelling, bleeding, and protrusion of hemorrhoidal mass, frequently associated with constipation and straining.[2] The prevalence rate of haemorrhoids in general population is around 38% out of which grade four hemorrhoids contribute about 0.53%. [3]

Thrombosed external hemorrhoids are best managed by hemorrhoidectomy but is often associated with significantly more pain and complications than nonoperative techniques.[4]

In Ayurveda, Acharya Sushruta has described Guda Arsha (haemorrhoids) as a painful anorectal condition with clinical features such as pain (Shoola), bleeding (Rakta Srava), and prolapse (Guda Shotha) long with its holistic management. [5-7] This condition closely resembles the modern presentation of external prolapsed haemorrhoids and can be termed as Bahya-gudarsha bhramsa. Among the management options, Raktamokshana (bloodletting) by Jalaukavacharana (leech therapy) is specifically indicated in painful, congestive conditions of the anorectal region due to its minimally invasive and localized action.[8]

This case series documents three patients with external prolapsed haemorrhoids which were managed successfully with leech therapy and supportive Ayurvedic medications. The evaluation was done using standardized clinical scoring tools such as PNR-Bleed classification, Hemorrhoid Severity Score (HSS) and Defense and Veterans Pain Rating Scale (DVPRS). The objective of this case series is to provide preliminary evidence which supports leech therapy as a safe, effective, and minimally invasive conservative treatment option which offers a viable alternative when surgical intervention is not feasible.

PATIENT INFORMATION

This case series includes three male patients who presented to the Shalya tantra Outpatient Department (OPD), D. Y. Patil Ayurvedic Hospital and Research Centre, Sector 7, Nerul, Navi Mumbai, Maharashtra, India. All patients were clinically diagnosed with external prolapsed haemorrhoids based on detailed history and local anorectal examination.

The demographic and clinical details of the patients, including age, gender, duration of symptoms, history of constipation or straining during defecation, number and anatomical position of haemorrhoidal masses, associated complaints, and final diagnosis are summarized in Table 1.

Case 1

A 45-year-old male patient presented to the Shalya tantra OPD with complaints of pain and swelling at anal region since past 2

days, per rectal bleeding since past 1 month, and a long-standing history of constipation since past 25 years. On local examination, external prolapsed haemorrhoids were seen at 3 and 11 o'clock positions extending along with secondary circumferential haemorrhoids, with extreme tenderness and congestion of anal mucosa can be seen in Figure 1. The patient was unwilling for surgical or invasive treatment options and was instead willing to undergo Ayurvedic management for this condition. He was hemodynamically stable with no systemic abnormalities. After assessment using the PNR-Bleed classification, HSS score and DVPR Scale, 2 sittings of leech therapy were planned as the primary intervention along with supportive oral Ayurvedic medications for the entire duration of the treatment.

Case 2
A 54-year-old male patient presented to the Shalya tantra OPD with complaints of pain and swelling in the anal region since past 3–4 days, history of per rectal bleeding on and off since past 6–7 years, along with the sensation of something protruding from the anus after defecation. On local examination, external prolapsed haemorrhoids were found circumferentially at the 3, 7, and 11 o'clock positions along with smaller secondary haemorrhoids can be seen in Figure 2. The patient had no prior surgical history and preferred Ayurvedic treatment over the surgical options. He was admitted for conservative management by leech therapy and supportive oral Ayurvedic medications. After evaluation with the PNR-Bleed classification, HSS scoring system and DVPR Scale, 3 sittings of leech therapy were performed as the primary line of treatment along with supportive oral ayurvedic medicines.

Case 3
A 62-year-old male patient presented to the Shalya tantra OPD with complaints of severe anal pain, swelling, and difficulty in sitting for the past 6–7 days. The onset of symptoms followed a period of prolonged travel. On local examination, external prolapsed haemorrhoids were noted at the 3 and 9 o'clock positions extending outwards circumferentially, with associated excoriation and blackish discoloration over the 3 o'clock pile mass can be seen in Figure 3. The patient had no significant past medical or surgical history. The patient was stable on systemic examination and was managed on outpatient basis. After assessment with the PNR-Bleed classification, HSS scale and DVPR Scale, leech therapy was planned to reduce venous congestion and inflammation for the management of this acute condition.

Clinical Findings
In all the three patients in this case series had presented with symptomatic external prolapsed haemorrhoids, primarily characterized by anal pain, swelling, difficulty in sitting, with two cases having per rectal bleeding. The duration of symptoms ranged from 2 days to 1 week showing an acute onset with associated history of chronic constipation or straining during defecation. On local examination, external prolapsed hemorrhoidal masses were observed at various positions around the anal verge, commonly seen at the 3, 7, and 11 o'clock positions with which were circumferential orientation. The pile masses were tense, tender with bluish or blackish discoloration of the mucosa and with one case showing marked excoriation and skin discoloration was noted over the haemorrhoidal mass.

All patients were systemically stable with no associated comorbidities or signs of systemic infection. Based on clinical evaluation, each case was graded using the PNR-Bleed classification Haemorrhoid Severity Score (HSS) and DVPR Scale prior to the initiation of therapy. The Gradation of PNR-Bleed Classification and DVPR Scale have been mentioned in table 2 respectively. [9, 10]

Timeline
The timeline of all the 3 patients has been mentioned in Table 3.

Diagnostic Assessment
External prolapsed haemorrhoids are primarily diagnosed clinically based on patient-reported symptoms and local anorectal examination. Since no laboratory or imaging investigations are typically required for diagnosis, the evaluation of the case series was conducted through direct clinical inspection and symptom-based scoring tools. The PNR-Bleed classification, the Haemorrhoid Severity Score (HSS) and DVPR Scale were used as standardized assessment tools to evaluate the extent of prolapse, relation to the dentate line, number of involved columns, and severity of per rectal bleeding and pain. These parameters helped in determining both the initial severity and the response to therapy during follow-up.

Based on the resemblance in clinical features the condition has been clinically diagnosed as Bahya-gudarsha bhramsa (External prolapse haemorrhoids). In Ayurveda, such patients can be diagnosed under the broad category of Guda arsha (haemorrhoids) as described by Acharya Sushruta, characterized by Shoola (~anal pain), Rakta srava (per rectal bleeding), Guda shotha (anal swelling/prolapse), and Mamsa ankura (fleshy outgrowth near the anal orifice). The acute presentation of pain, bleeding, and prolapse in these patients corresponds to Rakta-Pitta pradhana arsha (haemorrhoids dominated by vitiation of Rakta and Pitta dosha) with Vata involvement causing symptoms of pain and constipation. [11]

Patients were advised to report for follow-up visits at 3-day intervals or earlier in case of any aggravation in symptoms. The treatment plan and expected outcome were clearly explained to each patient, including the gradual reduction in symptoms such as pain, prolapse size, and bleeding following the sittings of leech therapy. Prior to the treatment written informed consent was obtained from all the patients treated by leech therapy in this case series.

Therapeutic Intervention
After selecting the patient and procuring the written informed consent form, primary intervention using leech therapy, along with supportive internal medications was planned. The procedure was performed as per classical descriptions in Sushruta Samhita and the institutional Standard Operating Protocol (SOP).[12]

Purvakarma (pre-procedure) - Patients were informed about the procedure, its expected benefits, possible minor side effects, and consent was taken prior to the procedure. Medicinal leeches (*Hirudo medicinalis*) were procured from the institutes authentic source and were maintained in clean, non-chlorinated water. Prior to application, the patients were given left-lateral position, and the perianal region was cleansed with normal saline. The most congested and tender points over the haemorrhoidal swelling were identified. It is important to mention that one should not use any antiseptics, creams, lotions, spirit for cleaning the Jalokavacharan site, as these can deter leeches from attaching.

Pradhan Karma (main-procedure) - Four leeches were applied in the first session, at the base of haemorrhoidal mass. Leeches were allowed to attach naturally and feed until spontaneous detachment. The average duration of attachment varied between 20–40 minutes. A wet cotton pad was kept over the leeches in order to facilitate the procedure. A single leech suck or removed approximately 8-10 ml of blood. Furthermore, the trefoil-shaped puncture sites continued to ooze for approximately 1 to 4 hours after application.

Paschat Karma (post-procedure) - The bite sites were cleaned with sterile gauzes, followed by dressing with Haridra (*Curcuma longa*) powder to aid haemostasis and prevent infection. Patients were observed for 3-4 hours post procedure to ensure there was no excessive bleeding. Patients were advised to maintain local hygiene, including lukewarm sitz baths twice daily and avoidance of straining during defecation.

Further, emesis of the Leeches was done by dusting Haridra (*Curcuma longa*) powder over its mouth and then were placed into Haridra (*Curcuma longa*) water followed by pure water after complete emesis has been achieved. The used leeches were kept in a separate jar labelled with details of the patient. The same procedure was repeated after 7 days with 3 leeches in 1st and 3rd cases and on 14th day in the more severe 2nd case. The Jalokavacharan (Leech therapy) procedure done on cases 1, 2 and 3 have been showcased in Figure 4, 5 and 6 respectively.

Internal Medications

All patients were prescribed internal Ayurvedic medications alongside leech therapy to enhance therapeutic outcomes. Triphala guggulu (500 mg) and Arogyavardhini vati (500 mg) were administered twice daily during morning and evening after meals with lukewarm water to promote anti-inflammatory action and to improve digestion. Gandharva haritaki churna (5 g) was given at night with warm water to ensure mild laxation and prevent straining during defecation. These formulations were continued for the entire duration of leech therapy and for one week thereafter till resolution of the symptoms. The details of the internal medication protocol have been mentioned in Table 4.

Statistical Analysis

Statistical analysis was performed to evaluate changes in clinical scores over time following leech therapy. As the data consisted of repeated measurements taken at multiple time points (Day 0, Day 3, Day 7, Day 10, and Day 14) from a small sample size (n = 3), a non-parametric repeated-measures Friedman test was applied.

The Friedman test was used to assess overall differences across time points for individual components of the PNR-Bleed classification (prolapse, number of columns, relation to dentate line, bleeding per rectum), the total Hemorrhoid Severity Score (HSS), and the Defense and Veterans Pain Rating Scale (DVPRS). A p-value < 0.05 was considered statistically significant.

Where the Friedman test showed statistical significance, post-hoc pairwise comparisons using the Wilcoxon signed-rank test were performed between baseline (Day 0) and subsequent follow-up time points to explore the direction of change. Due to the very small sample size, these pairwise comparisons were considered exploratory and were interpreted descriptively.

Overall, a statistically significant reduction over time was observed in all outcome measures, with scores showing a consistent and monotonic decrease from baseline to the final assessment, indicating sustained clinical improvement following leech therapy.

Table 1: Demographic and clinical features of patients

Parameter	Case 1	Case 2	Case 3
Age (years)	45	54	62
Gender	Male	Male	Male
Duration of Present Symptoms	Pain – 2 days, PR bleeding – 1 month, mass – 2 days	Pain & mass – 3–4 days, PR bleeding – 6–7 years	Pain, swelling & difficulty sitting – 6–7 days
History of Constipation/Straining	25 years, intermittent	Long-standing since 2-3 Years	History of Travelling for long duration
Number & Position of Haemorrhoidal Masses	2 masses at 3 and 11 o'clock positions	3 masses at 3, 7, and 11 o'clock positions	2 masses at 3 and 9 o'clock positions, blackish discoloration at 3 o'clock
Itching at Anal Region	No	No	No
Associated Complaints	None other than primary symptoms	Prolapse after defecation	Excoriation over haemorrhoidal mass
Hemoglobin (g%)	12.7	17	11.4
Diagnosis	External prolapsed haemorrhoids	External prolapsed haemorrhoids	External prolapsed haemorrhoids

Table 2: Gradation of PNR-Bleed Classification and DVPR scale

Component (Mnemonic)	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Prolapse (P)	No haemorrhoidal prolapse	Prolapse with straining, reduces spontaneously	Prolapse upon straining, needs manual reduction	Prolapsed and irreducible, no ischemic changes	Prolapsed irreducible with ischemic or gangrenous changes
Number of columns (N)	None (normal cushions)	One primary column involved	Two columns	Three columns	Circumferential involvement (primary + secondary haemorrhoids)
Relation to dentate line (R)	Nil (normal cushions)	External haemorrhoids	Internal haemorrhoids	Interno-external (mixed)	Prolapsed external haemorrhoids
Bleeding (B)	Nil	Mild – occasional during defecation	Moderate – frequent during defecation	Severe – persistent bleeding even without defecation; Hb <10 g/dL; needs hematinics	Very severe – bleeding in jets/splashes; Hb <7 g/dL; transfusion required
Pain assessment as per modified Defence and Veterans Pain Rating Scale (DVPRS)	0 - No pain	1-3 Mild (Notices pain but does not interfere with daily activity).	4-6 Moderate (Distracting Pain which interferes with daily activities)	7-9 Severe (Pain is hard to ignore and can't perform daily activities)	10 Very severe Pain – Worst unbearable pain

Table 3: Overall Treatment Timeline and Outcomes

Day	Date	Intervention	Internal Medications	Clinical Findings (PNR-Bleed / HSS/DVPRS)
Case 1				
Day 0	Feb 12, 2024	1st sitting – 4 leeches	Triphala guggulu, Arogyavardhini vati, Gandharva haritaki churna, Sitz bath	P4N5R5B3 – Severe prolapsed prolapsed haemorrhoids involving all 3 columns, with frequent bleeding, and unbearable severe pain with DVPRS - 8.
Day 3	Feb 15, 2024	1st Follow up Assessment	Same as above	P3N3R4B3 - Reduction in congestion of prolapsed rectal mucosa, per rectal bleeding and pain on DVPRS - 4.
Day 7	Feb 19, 2024	2nd sitting – 3 leeches	Same as above	P3N3R4B2 – Reduction in prolapse of rectal mucosa with mild bleeding, and significant pain relief seen on DVPRS – 1 developing over several days.
Day 10	Feb 22, 2024	2nd follow up Assessment	Same as above	P2N2R2B1 – Significant reduction in mucosal prolapse, with resolution of per rectal bleeding and complete resolution of pain by DVPRS - 0.
Day 14	Feb 26, 2024	Final assessment	Same as above	P1N1R1B1 – Stable condition, with no fresh bleeding and complete resolution of pain (DVPRS - 0) along with residual mild prolapse
Case 2				
Day 0	Aug 9, 2024	1st sitting – 4 leeches	Triphala guggulu, Arogyavardhini vati, Gandharva haritaki churna, Sitz bath	P5N5R5B3 -Severe prolapse involving all 3 columns along with ischemic changes of external mucosa with severe per-rectal bleeding and pain as per DVPRS - 9
Day 3	Aug 12, 2024	1st follow up Assessment	Same as above	P5N4R4B3 – Reduction in mucosal congestion involving 3 haemorrhoidal columns and reduction in per rectal pain on DVPRS - 7
Day 7	Aug 16, 2024	2nd sitting – 4 leeches	Same as above	P4N4R4B3 – Resolution in ischemic changes of prolapsed mucosa along with significant reduction in pain on DVPRS - 4
Day 10	Aug 19, 2024	2nd follow up Assessment	Same as above	P3N4R4B2 – Mucosa reducible by manual reduction along with reduction in per rectal bleeding and pain on DVPRS - 3
Day 14	Aug 23, 2024	3rd sitting – 3 leeches	Same as above	P2N3R2B2 - Mild prolapse of external component of 2 primary haemorrhoidal columns with reduced pre rectal bleeding and significant pain relief DVPRS – 0 developing in due course of time.
Day 17	Aug 26, 2024	3rd follow up Assessment	Same as above	P2N3R2B1 - No fresh bleeding, along with mild prolapse of haemorrhoidal mucosa upon straining with no per rectal pain (DVPRS - 0)
Day 21	Aug 30, 2024	Final Assessment	Same as above	P2N2R2B1 – Patient is stable with complete relief in symptoms of per rectal bleeding and pain (DVPRS - 0), with small external component of single haemorrhoidal column
Case 3				
Day 0	Dec 14, 2024	1st sitting – 4 leeches	Triphala guggulu, Arogyavardhini vati, Gandharva haritaki churna, Sitz bath	P5N3R5B2 – Very large haemorrhoidal prolapse involving 2 columns and external components with ischemic changes with occasional bleeding and severe per rectal pain on DVPRS - 8
Day 3	Dec 17, 2024	1st Follow up Assessment	Same as above	P5N3R4B2 - Reduction in mucosal congestion involving 2 haemorrhoidal columns and per rectal pain on DVPRS - 5
Day 7	Dec 21, 2024	2nd sitting – 3 leeches	Same as above	P3N3R2B1 - Mild prolapse of external component of 2 primary haemorrhoidal columns with complete resolution of pre rectal bleeding and significant pain relief on DVPRS - 4.
Day 10	Dec 24, 2024	2nd Follow up Assessment	Same as above	P2N2R2B1 – Minimal prolapse involving a single haemorrhoidal column with marked reduction in per rectal pain on DVPRS - 1.
Day 14	Dec 28, 2024	Final Assessment	Same as above	P1N2R1B1 - Stable patient with no fresh per-rectal bleeding and complete resolution in pain (DVPRS - 0). Small Shrunken single external component of the haemorrhoid noted at anal verge.

Table 4: Common Internal medication treatment protocol administered to all patients

Name of Medicine	Duration of internal Medication			Dose	Frequency	Anupaan (Adjuvant)
	Case 1	Case 2	Case 3			
Triphala guggulu	February 12, 2024 to February 26, 2024 (14 Days)	August 9, 2024 to August 30, 2024 (21 Days)	December 14, 2024 to December 28, 2024 (14 Days)	500 mg	2 tablets twice daily	Lukewarm water
Arogyavardhini vati				500 mg	2 tablets twice daily	Lukewarm water
Gandharva haritaki churna				5 gm	At night daily	Lukewarm water
Sitz bath				-	10 mins daily post-defecation in lukewarm water	

Table 5: PNR Bleed score of all the cases across timeline

Case	Timepoint	Prolapse (P)	No. of Columns (N)	Relation to Dentate Line (R)	Bleeding per Rectum (B)	HS Score	DVPRS
Case 1	Baseline First sitting Day 0	4	5	5	3	17	8
	Day 3	3	3	4	3	13	4
	Second sitting Day 7	3	3	4	2	12	1
	Day 10	2	2	2	1	7	0
	Final assessment Day 14	1	1	1	1	4	0
Case 2	Baseline First sitting Day 0	5	5	5	3	18	9
	Day 3	5	4	4	3	16	7
	2nd sitting Day 7	4	4	4	3	15	4
	Day 10	3	4	4	2	13	3
	After 3rd sitting Day 14	2	3	2	2	9	0
	Day 17	2	3	2	1	8	0
	Final assessment Day 21	2	2	2	1	7	0
Case 3	Baseline First sitting Day 0	5	3	5	2	15	8
	Day 3	5	3	4	2	14	5
	Second sitting Day 7	3	3	2	1	9	4
	Day 10	2	2	2	1	7	1
	Final assessment Day 14	1	2	1	1	5	0

Table 6: Friedman test (non-parametric repeated-measures analogue of one-way ANOVA) and p-values of all the parameters tested at 0.05 level of significance

Variable	Friedman chi^2	p_value
Prolapse (P)	11.57895	0.020773
No. of Columns (N)	10.56	0.03198
Relation to Dentate Line (R)	11.33333	0.023063
Bleeding per Rectum (B)	10.66667	0.030577
Total Score	12	0.017351
DVPRS	11.86441	0.018389

Figure 1: Case 1 Local Examination on Day 0

Figure 2: Case 2 Local Examination on Day 0

Figure 3: Case 3 Local Examination on Day 0

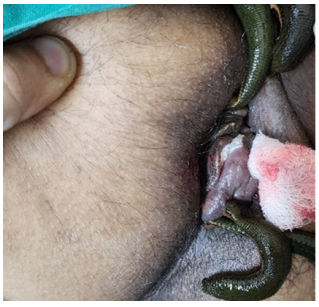

Figure 4: Procedure of Leech Therapy in Case 1

Figure 5: Procedure of Leech Therapy in Case 2

Figure 6: Procedure of Leech Therapy in Case 3

Figure 7: Case 1 Local Examination on Day 14

Figure 8: Case 2 Local Examination on Day 21

Figure 9: Case 3 Local Examination on Day 14

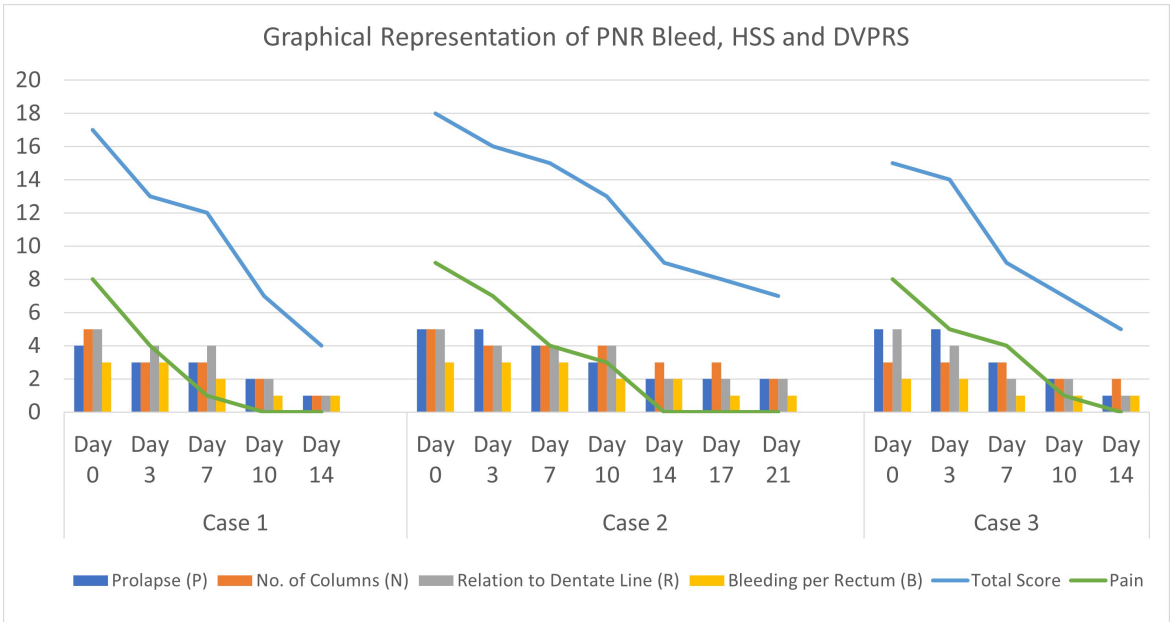

Figure 10: Graphical Representation of PNR Bleed, HSS and DVPRS on Follow ups

RESULTS

All patients were assessed systematically at fixed intervals according to the treatment protocol. Day 0 was considered baseline, followed by an early follow-up on Day 3 to document changes in pain and congestion. Subsequent sittings of leech therapy were performed on Day 7 for all the patients with an additional leech therapy session on Day 14 in one severe case. Additional assessments were performed three days after each sitting followed by a final evaluation conducted one week after the last sitting. Significant pain relief was noted within the first 3 days, with reduction in mucosal congestion and bleeding becoming evident by Day 7. The size of the prolapsed haemorrhoidal pile mass progressively reduced after each sitting of leech therapy, and by the final assessment, all patients had minimal to no residual prolapse. Furthermore, there was complete resolution in the symptoms of per rectal bleeding, and pain. The overall reduction in Haemorrhoid Severity Score (HSS) ranged between 65%–75%, and the DVPRS score dropped to zero in all patients. None of the cases required surgical intervention or additional allopathic support, and no adverse effects were reported throughout the therapy course.

The detailed clinical progression of each case at every follow-up, including PNR-Bleed, HSS, DVPRS scores and Friedmans Test analysis data are summarized in Table 4, Table 5 Table 6 and Figures 7, 8 ad 9.

DISCUSSION

This case series highlights the role of leech therapy as a minimally invasive, conservative approach in the management of external prolapsed haemorrhoids. All three patients in this case series presented with symptoms of acute external prolapsed haemorrhoids which were characterized by pain, swelling, prolapse, and bleeding per rectum. In each case, significant clinical improvement was observed after sequential sittings of leech therapy at defined intervals, as evidenced by progressive reductions in the PNR-Bleed parameters, corresponding Hemorrhoid Severity Scores (HSS) and DVPRS which can be seen from the graphical representation in Figure 10.

The intervention showcased a rapid decline in anal pain and mucosal congestion which were particularly noticeable by the third day follow-up after the first sitting in all cases. Repeated sittings on the seventh day and subsequent assessments further demonstrated progressive improvement in the symptoms. On the final evaluation near-complete resolution of bleeding, prolapse, and tenderness were seen. Moreover, in severe cases such as case 2 which presented with the most severe prolapse and ischemic changes required an additional third sitting of leech therapy. This adaptive approach reflects the flexible application of leech therapy based on clinical severity, aligning with the personalized treatment plan of Ayurvedic therapy.

Moreover, irregular bowel movements and straining during defecation can be considered as important contributory factors in progression of the haemorrhoidal disease.[13] The complementary role of internal Ayurvedic medications, such as Triphala guggulu, Arogyavardhini vati, and Gandharva haritaki churna which supported bowel regulation and reduced straining during defecation can also be highlighted from this case series.

Clinically, these findings suggest that leech therapy can serve as an effective alternative to conventional surgical or invasive procedures in selected patients with external prolapsed haemorrhoids, particularly those unwilling or unfit for operative management. The marked reduction in HSS and DVPRS from baseline to final assessment across all three cases underscores its potential utility as a safe, reproducible, and minimally invasive treatment modality.

Furthermore, in order to validate these findings and to establish leech therapy as a standardized protocol for management of External Prolapsed haemorrhoids larger randomized controlled trials and comparative studies are desired.

Probable Mode of Action

Leech therapy has been described in Ayurveda as the treatment of choice for conditions involving Rakta dushti (vitiation of blood), venous stasis, and localized inflammation. In the context of external prolapsed haemorrhoids, application of leeches helps in relieving venous congestion by reducing stagnant blood from engorged hemorrhoidal vessels. The bioactive substances in leech saliva such as hirudin, calin, eglins, and bdellins possess anticoagulant, anti-inflammatory, and analgesic properties. [14,15] These facilitate microcirculation, prevent thrombosis, and reduce edema and local pain. Clinically, this translates into early reduction of mucosal congestion, prolapse size, and per-rectal bleeding after each sitting.[16]

The supportive oral medications played a synergistic role in overall healing, and the actions can be hypothesised based on the various clinical trials performed on these medicines. Triphala guggulu acts as Shothahara (anti-inflammatory), and helps in improving bowel regulation which reducing chronic straining during defecation.[17] Arogyavardhini vati aids in Agnideepana (Stimulation of digestive fire), Pittashamana (balancing Pitta dosha), and supports liver functions, thereby improving overall metabolism and tissue healing.[18] Gandharva haritaki churna works as a mild purgative (virechaka), relieving chronic constipation and minimizing pressure over hemorrhoidal plexus.[19] Sitz bath with lukewarm water for 10mins has been recommended to relieve pain through relaxation of the internal sphincter and reduction of anal resting pressure via the Thermosphincteric reflex. Thus, providing soothing, cleansing, and localized anti-inflammatory effects which further supported the symptomatic relief. [20]

CONCLUSION

In this case series, the role of leech therapy (Jalaukavacharana) along with supportive Ayurvedic medications provided marked symptomatic relief such as mucosal prolapse, per-rectal pain and bleeding without any recurrence during the follow up period. These outcomes highlight the potential of leech therapy as a conservative, minimally invasive alternative for patients unwilling or unfit for surgical interventions. Further validation through well-designed clinical trials on a larger cohort is necessary to establish its therapeutic role in moder era.

Declaration of Patient Consent

The authors certify that they have obtained written consent from all the patients included in this case series. Each patient provided consent for reporting their clinical details and treatment outcomes in this journal. The patients understand that their names and initials will not be published, and due efforts will be made to conceal their identity; however, complete anonymity cannot be guaranteed.

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