



Case Report

Ayurvedic management of diabetes-induced retrograde ejaculation: A case report

Article History:

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Abstract: Background: Retrograde ejaculation (RE) is a rare cause of male infertility, commonly associated with diabetic autonomic neuropathy. **Case Presentation:** A 33-year-old male with type 2 diabetes mellitus presented with anejaculation despite orgasm and turbid post-ejaculatory urine. Post-coital urine analysis confirmed the presence of spermatozoa. **Intervention:** The patient was treated with an Ayurvedic protocol including Virechana (therapeutic purgation), Triphaladi Kala Basti, and oral administration of Shilappravang. **Outcome:** post-treatment, the patient demonstrated restoration of antegrade ejaculation, absence of sperm in post-ejaculatory urine, improved glycemic control (HbA1c: 9.4% to 5.9%), and successful natural conception. **Conclusion:** This case suggests a possible role of Ayurvedic interventions in managing diabetic retrograde ejaculation. Further controlled studies are required.

Keywords: Retrograde ejaculation, Madhumeha, Panchakarma, Basti, Virechana.

Received: 12-05-2025

Revised: 05-06-2025

Accepted: 20-06-2025

Published: 04-07-2025

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INTRODUCTION

Male infertility stems from both hereditary predispositions and behavioural determinants, with intact ejaculatory mechanisms being critical for reproductive capacity. RE accounts for only 0.3-2% of total infertility cases; it affects 34.6% of diabetic menⁱ. Retrograde Ejaculation (RE) is characterized by the retrograde migration of seminal fluid into the urinary bladder rather than antegrade expulsion through the urethra, primarily attributed to impaired bladder neck sphincter competence, frequently secondary to diabetic autonomic neuropathy. Diagnostic confirmation is established through the identification of spermatozoa in post-coital urine specimens in the absence of sperm in the ejaculateⁱⁱ. Present management strategies concentrate on retrieving viable sperm from the bladder for assisted reproductive procedures including IUI and IVF. To protect sperm quality, sodium bicarbonate is used to neutralize the acidic urinary environment. Despite these efforts, success rates remain modest, with approximately 15% of couples achieving pregnancy per treatment cycleⁱⁱⁱ.

Ancient Ayurvedic texts recognize conditions like Retrograde Ejaculation as part of *Shukra Dosha* (disorders of seminal fluid), explaining the problem as an imbalance of vitiation of *Kapha* and *Vata dosha* that obstructs the *Shukravaha Srotas* (reproductive pathways). Treatment focuses on restoring normal bodily function through cleansing, rejuvenation, and specific herbal remedies. Despite this traditional knowledge, there is limited modern research documenting how Ayurvedic treatments work for retrograde ejaculation in diabetic patients.

This case report describes the successful treatment of a 33-year-old diabetic man with retrograde ejaculation using a comprehensive Ayurvedic approach. The treatment included *Virechan* (medicated purgation), *Triphaladi Kal Basti* (therapeutic enema), and oral herbal medications, which led to natural conception and pregnancy. This case demonstrates how traditional Ayurvedic therapies may offer valuable complementary treatment options for managing reproductive problems in men with diabetes.

CASE REPORT

A 33-year-old male patient, married for Five years, came to the Panchakarma outpatient clinic seeking help for infertility. His main concerns included dry orgasms (absence of ejaculation) and noticeably cloudy urine after sexual activity. He was a known case of type 2 diabetes mellitus for 7 years with a sedentary lifestyle. Clinical examination revealed that the patient was obese, weighing 120 kg, with generalized swelling and dry skin. known case of type 2 diabetes mellitus for the past five years. His daily routine was largely sedentary, spending more than 12 hours sitting each day due to his night shift work schedule. He did not engage in any regular exercise and followed a strictly vegetarian diet. This combination of health conditions and lifestyle habits appeared to be contributing factors to his fertility problems.

Table No. 1: Treatment Plan with Time line

Treatment Regimen	Duration	Dates	Drug	Dose & Frequency	Route of Administration
	Virechan (Therapeutic Medicated Purgation)				
Deepan, Pachana (Oral Medication as a Preprocedural of Snehapan)	3 days		Vaishvanar churna (Before meal)	500 mg thrice a day	Oral
		17/12/2021 To 19/12/2021			Oral
Snehapan (Oral Administration of Medicated Clarified Butter)	5 Days	20/12/2021	Goghrita (clarified butter) (at 6:30 am with warm water)	30ml	Oral
		21/12/2021		60 ml	
		22/12/2021		85 ml	
		23/12/2021		110 ml	
		24/12/2021		150 ml	
Abhyang (Smearing of Oil followed by whole body Massage)	3 days	25/12/2021 To 27/12/2021	Tila Taila (Sesame Oil)	For 45 minutes	External Application
Swedan (Whole body Sudation)	3 days	25/12/2021 to 27/12/2021	Fomentation of Dashamoola Decoction	For 7 minutes	External Application
Virechan (Therapeutic Purgation)	1 day	27/12/2021	Trivritta Avaleha	50 gm	Oral
Sansarjan Krama (Dietary Regimen After Completion of Virechan)	5 days	27/12/2021 01/01/2022	Peya, Vilepi, Akrit Yush, Krit Yush, Akrita Mansaras, Krita Mansars each for twice		Oral
	Triphaladi Kal Basti				
Anuvasan Basti (Administration of Medicated Oil through Anal Canal in Large Intestine)	10 days	10/01/2022	Triphadya Taila	120 ml on each day	Anal Route
		11/01/2022			
		13/01/2022			
		15/01/2022			
		17/01/2022			
		19/01/2022			
		21/01/2022			
		23/01/2022			
		24/01/2022			
		25/01/2022			
Triphaladi Niruha (Administration of Medicated Emulsion through Anal Canal in Large Intestine)	6 days	12/01/2022	Triphala Decoction+ Honey+ Rock Salt+ Triphaladya Taila	960 ml on day	Anal Route
		14/01/2022			
		16/01/2022			
		18/01/2022			
		20/01/2022			
		22/01/2022			
	Oral Medicine				
Herbomineral Formulation (Oral Medication)	2 months	01/02/2022 to 28/04/2022	Tab. Shilappravang	250 mg BD	Oral Route

Table No. 2: Single Drugs and Formulations Used in Treatment

Drug	Contents
<i>Vaishvanar churna</i> ^{iv}	<i>Saidhava lavana</i> (Rock Salt), <i>Ajawain</i> (Trachyspermum ammi), <i>Ajmoda</i> (Apiumleptopyllum), <i>Shunthi</i> (Zingiber officinalis), <i>Haritaki</i> (Terminalia chebula)
<i>Goghrita</i>	<i>Goghrita</i>
<i>Trivruttha Avaleha</i> ^v	<i>Trivrit</i> (Operculina turpethum), <i>Tamala Patra</i> (Cinnamomum tamala), <i>Twak</i> (Cinnamomum cassia), <i>Ela</i> (Elettaria cardamomum), <i>Madhu</i> (Honey) & <i>Khandsharkara</i> (Rock candy)
<i>Triphadi Taila</i> ^{vi}	<i>Amalaki</i> (Emblica officinalis), <i>Bibhitak</i> (Terminalia bellerica), <i>Haritaki</i> (Terminalia chebula), <i>Chitrak</i> (Plumbago zeylanica), <i>Nishottar</i> (Operculina apentum), <i>Aragwadh</i> (Cassia Fistula), <i>Vacha</i> (Acorus calamus), <i>Guduchi</i> (Tinospora cordifolia), <i>Haridra</i> (Curcuma longa), <i>Ativisha</i> (Aconitum heterophyllum), <i>Murva</i> (Marsdenia tenacissima), <i>Vasa</i> (Adhatoda vasika), <i>Nimb</i> (Azadirachta indica), <i>Saptaparna</i> (Alstonia scholaris), <i>Daruharidra</i> (Berberis aristata), <i>Indrayan</i> (Citrullus Colocynthis), <i>Pipal</i> (Ficus Religiosa), <i>Yavani</i> (Carum copticum), <i>Kushtha</i> (Sussurea luppa), <i>Pippali</i> (Piper longum), <i>Bilva</i> (Aegle marmelos), <i>Madanphala</i> (Randia dumetorum R. spinosa), <i>Shatapushpa</i> (Anthem graveolens Benth), <i>Surasa</i> , <i>Shweta Surasa</i> (Ocimum sanctum) <i>Phaninjhaka</i> (Origanum majorana), <i>Arjaka</i> (Ocimum basilicum), <i>Bhustruna</i> (Hyptis suaveolens), <i>Sugandhaka</i> (Leucas cephalotes), <i>Sumukha</i> (Brassica juncea), <i>Krisnajaraka</i> (Ocimum basilium), <i>Kutherak</i> (Orthosiphon pallidus), <i>Kasamamarda</i> (Cassia occidentalis), <i>Vidanga</i> (Embelia ribes), <i>Kshavaka</i> (Centipeda minima), <i>Kharapushpa</i> , <i>Surasi</i> (Limonia crenulata), <i>Nirgundi</i> (Vitex nenundo), <i>Kulahal</i> (Mundika (Sphaeranthus indicus), <i>Undurukarnika</i> (Ipomea reniformis chois), <i>Phanji</i> (Clerodendrum serratum), <i>Kakjangha</i> (Ethnopharmacological), <i>Kakmachi</i> (Solanum nigrum), <i>Kayaphal</i> (Myrica esculenta), <i>Bharangi root</i> (Clerodendrum serratum), <i>Mahanimb</i> (Melia azedarah Linn)
<i>Triphaladi Niruha Solution (Emulsion)</i> ^{vii}	<i>Triphaladi Kwath</i> [<i>Amalaki</i> (Emblica officinalis), <i>Bibhitak</i> (Terminalia bellerica), <i>Haritaki</i> (Terminalia chebula), <i>Yavani</i> (Carum copticum), <i>Bilva</i> (Aegle marmelos), <i>Vasa</i> (Adhatoda vasika), <i>Kushtha</i> (Sussurea Luppa), <i>Musta</i> (Cyperus rotundus), <i>Pippali</i> (Piper Longum), <i>Madanphala</i> (Randia dumetorum R. spinosa)] <i>Saidhav</i> (Rock Salt) <i>Yavakshar</i> <i>Madhu</i> (Honey) <i>Tila Taila</i> (Sisamum indicum) <i>Gomutra</i> (Cow Urine)
<i>Tab. Shilappravang</i> ^{viii}	<i>Shuddha Shilajatu</i> (Purified Asphaltum punjabianum), <i>Praval Pishti</i> (Calcium carbonate, Magnesium, trace elements), <i>Vanga Bhasma</i> (Tin oxide), <i>Swarna Makshika Bhasma</i> (Calcined Copper pyrite), <i>Mukta Pishti</i> (Calcium Carbonate & Conchiolin), <i>Guduchi Satva</i> (Tinospora cordifolia), <i>Ela</i> (Elettaria cardamomum), <i>Vanshlochana</i> (Bamboo silica), <i>Karpura</i> (Camphor) & <i>Gokshura</i> (Tribulus terrestris)

II.I Outcome Measures:

Clinical improvement was assessed using both subjective and objective parameters:

1. Reduction in symptoms of dry orgasm and cloudy urine.
2. Post Ejaculatory Urine Examination
3. HbA1c levels

II.II Results

Table No. 3: Blood Assessment Report for HbA1c

Sr. No.	Parameters	Before Treatment (16/12/2021)	After Treatment (30/04/2022)
1.	HbA1c	9.4 %	5.9 %
2.	Estimated Average Glucose (eAG)	129.67 mg/dl	99.62 mg/dl

Table No. 4: Post Ejaculatory Urine Examination

No.	Parameters of Post Ejaculatory Urine Examination	Before Treatment (16/12/2021)	After Treatment (30/04/2022)
.	Colour	Whitish	Pale Yellow
.	Transparency	Cloudy	Clear
.	Specific Gravity	1.015	1.030
.	pH	5.6	6.1

.	Spermatozoa	Present	Absent
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There was a complete resolution of symptoms of dry orgasm, with restoration of antegrade ejaculation, and disappearance of turbid urine after sexual activity.

Post-ejaculatory urine examination revealed the absence of spermatozoa after therapy and HbA1c levels showed significant improvement (See the Tables 3 and 4). The outcome was further supported by spontaneous conception in the patient's spouse, indicating restoration of reproductive function.

DISCUSSION

This case demonstrates potential therapeutic efficacy of an Ayurvedic protocol in reversing diabetic retrograde ejaculation, with documented restoration of antegrade ejaculation and spontaneous conception alongside substantial improvement in glycemic control.

The pathophysiology involves progressive autonomic neuropathy affecting sympathetic nerve fibers from the superior hypogastric plexus, which provide essential $\alpha 1$ -adrenergic innervation to the internal urethral sphincter and bladder neck musculature. Chronic hyperglycemia initiates multiple pathological pathways: non-enzymatic glycation forming advanced glycation end products, polyol pathway activation with sorbitol accumulation causing osmotic stress, and microvascular insufficiency compromising vasa nervorum perfusion leading to nerve ischemia and demyelination. Concurrently, elevated free fatty acids promote ectopic lipid accumulation in peripheral nerves, generating toxic intermediates (diacylglycerols, ceramides) that impair insulin signalling and trigger Toll-like receptor 4-mediated neuroinflammation with release of pro-inflammatory cytokines (TNF- α , IL-1 β , IL-6). Excessive fatty acid oxidation overwhelms mitochondrial capacity, producing reactive oxygen species that damage mitochondrial DNA and impair ATP production. The net effect is impaired noradrenergic neurotransmission at the bladder neck, preventing adequate sphincter contraction during ejaculation and permitting retrograde semen flow.

The treatment protocol addressed these derangements through three interventions. Virechan (therapeutic purgation) likely yielded metabolic correction by reducing systemic inflammatory burden, enhancing pancreatic β -cell function, and modulating gut microbiota composition with improvements in insulin sensitivity.

The Triphaladi Kala Basti constituted the core neuroprotective component, delivering Triphala-containing medicated enemas rectally. Triphala's polyphenolic compounds (gallic acid, ellagic acid, chebulinic acid) demonstrate potent antioxidant activity, reducing malondialdehyde levels in nerve tissues while enhancing endogenous antioxidant enzymes (superoxide dismutase, catalase,

glutathione peroxidase), thereby interrupting lipid peroxidation and restoring redox homeostasis. Additionally, Triphala exhibits anti-inflammatory effects by inhibiting pro-inflammatory cytokine production and reducing macrophage/lymphocyte infiltration into peripheral nerves, limiting demyelination and preserving nerve fiber integrity. Furthermore, Triphala promotes neural repair through enhanced nerve growth factor expression, Schwann cell proliferation, and remyelination of damaged fibers, with experimental studies documenting 18-22% improvements in motor nerve conduction velocity. The rectal administration route bypasses hepatic first-pass metabolism, enhancing bioavailability of thermolabile phytochemicals, while the alternating lipid-based (Anuvasan) and aqueous-based (Niruha) enema pattern optimizes absorption of both lipophilic and hydrophilic compounds.

Shilapravang contributed through fulvic acid-mediated mitochondrial function enhancement, improved microcirculation to vasa nervorum, and pro-androgenic effects supporting ejaculatory function restoration.

The cumulative effect likely restored adequate $\alpha 1$ -adrenergic signalling at the internal urethral sphincter, re-establishing antegrade ejaculatory function as objectively confirmed by absent spermatozoa in post-coital urine and subsequent spontaneous conception.

However, significant methodological limitations preclude definitive conclusions. As an uncontrolled single-case observation without randomization, or comparison group, or spontaneous improvement, cannot be excluded. The multicomponent protocol prevents isolation of individual therapeutic contributions, and absence inflammatory biomarkers (hs-CRP, IL-6, TNF- α), oxidative stress parameters (malondialdehyde, antioxidant enzymes), free fatty acid levels, or neuroimaging represents critical gaps.

Despite these limitations, this case provides enough evidence to justify further research. Future studies should use randomized controlled trials with clear measurements like semen analysis, urine tests after intercourse, and pregnancy rates. These studies should also check how the treatment works by measuring nerve function, inflammation markers, and changes in body fat. Longer follow-up periods

are needed to see if benefits last and to monitor safety. Since current medications for diabetic nerve damage have limited success and diabetes affects millions worldwide, properly studying this Ayurvedic approach could reveal new treatment options for diabetic nerve problems beyond just ejaculation issues.

IV. LIMITATIONS AND FUTURE DIRECTIONS

This case study suggests Ayurvedic treatments (Virechan, Triphaladi Kal Basti, and Tab. Shilappravang) may effectively treat retrograde ejaculation through detoxification and metabolic mechanisms. However, single case limitations necessitate rigorous clinical trials with larger cohorts, standardized protocols, and mechanistic studies to validate efficacy. An integrative approach combining evidence-based evaluation of traditional Ayurvedic therapies with modern medical science could potentially expand therapeutic options for patients with retrograde ejaculation and related metabolic disorders

V. CONCLUSION

The integrated Ayurvedic protocol of Virechan, Triphaladi Kal Basti, and Tab. Shilappravang administration provides a multifaceted therapeutic approach addressing both metabolic dysregulation in Madhumeha (Type 2 DM) and associated neurogenic ejaculatory dysfunction. This patient-specific intervention targets pathophysiological mechanisms underlying retrograde ejaculation, potentially offering an alternative therapeutic modality for diabetes-related reproductive complications.

VI. PATIENT'S PERSPECTIVE

The patient reported significant emotional relief following successful conception, stating that confirmation of pregnancy brought a sense of joy and gratitude. He noted improvement in psychological well-being and quality of life after resolution of infertility. The Ayurvedic intervention was perceived as beneficial in addressing both the physiological condition and its associated psychological impact.

VII. PATIENT'S CONSENT

The patient consented to the publication of this case. the treatment gap in youth mental health care.

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