



Management of Post-Surgical Case of Dysphonia through *Ayurveda*.

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ABSTRACT:

Persistent dysphonia following micro-laryngeal surgery is a major clinical challenge, often affecting voice-dependent individuals whose professional efficacy and social interactions depend on vocal clarity. Conventional treatment modalities ranging from structured voice therapy to revision surgery may occasionally fall short in delivering functional restoration, particularly when post-operative scarring, inflammation, or incomplete vibratory recovery are involved.

Ayurveda classifies voice disorders under Swarabheda (hoarseness of voice), attributing pathology to derangement of Swaravaha Srotas (vocal passage) caused by Dosha imbalance. This case report documents the management of Swarabheda in a 64-year-old male presenting with chronic hoarseness and whispered speech that persisted even after 6 weeks following micro-laryngeal surgery for a vocal fold nodule. Despite adherence to speech therapy protocols, the patient failed to regain phonatory strength and vocal clarity through conventional medicine.

Based on voice quality and characteristics, the case was diagnosed as Vataja Swarabheda. Intervention included Gandusha (oil pulling) using Yashtimadhu Taila as well as internal medications—Vyoshadi Gutika, Triphala Guggulu, Yashtimadhu Kwatha, Dashamoola Kwatha, and Saraswatharishta. Vocal progress was monitored using GRBASI perceptual scale (Grade, Roughness, Breathiness, Asthenia, Strain, and Instability) at baseline, mid-therapy, and post-treatment intervals. A marked reduction in total GRBASI score—from 15 to 7 over 30 days—was noted, indicating perceptible improvement in vocal strength, clarity, and effort.

This case demonstrates the therapeutic efficacy of Ayurveda in managing dysphonia, particularly when standard surgical and rehabilitative approaches fail. It highlights the need for integrating Ayurveda formulations having Kantya (throat soothing), Swarya (voice promoting), Shothahara (anti-inflammatory), Vranaropaka (mucosal restoratives), and Dosha-specific protocols in chronic voice disorders and advocates for future clinical trials to validate these outcomes larger and diverse patient populations.

Introduction:

Voice is a vital medium of human expression—serving not only as a tool for communication but also reflecting personality, emotional state, and social dynamics. It is produced through the coordinated interplay of respiratory, phonatory, and articulatory systems, modulated by neural and psycho-emotional influences.⁽¹⁾ The vocal folds generate a sound source through vibration, which is then filtered by the supraglottic structures to produce speech.

Voice disorders, broadly classified under dysphonia, encompass conditions that impair the pitch, quality, loudness, or vocal effort required for phonation. These disorders can significantly affect communication and quality of life, particularly among professional voice users like teachers and performers. In India, the prevalence of voice disorders ranges from 21.6% among non-professional voice users⁽²⁾ to as high as 45.4% among professional voice users i.e., teachers⁽³⁾

Common aetiologies include vocal abuse, infection, inflammatory conditions, nodules, polyps,



neuromuscular dysfunction, and malignancy⁽⁴⁾. Vocal fold nodules—benign, symmetric lesions arising at stress points along the vocal fold—can alter vibratory dynamics and are frequently attributed to vocal overuse. Surgical excision is often warranted when conservative therapy fails, but persistent dysphonia post-surgery remains a known complication, often linked to residual scarring, edema, or incomplete tissue recovery⁽⁵⁾.

Ayurveda classifies voice disorders under *Swarabheda* (hoarseness of voice), a condition attributed to the disruption of *Swaravaha Srotas* (vocal passage). Acharya *Sushruta* cites etiological factors such as *Atyuchcha Bhashana* (speaking in loud voice), *Adhyayana* (loud recitation), *Abhigata* (trauma), and *Sheetopachara* (exposure to cold), each associated with involvement of specific *dosha*⁽⁶⁾. *Swarabheda* is classified into six types, each based on the predominance of a specific *Dosha*. In *Vata*-predominance the *Swara* (voice) is characterised as *Ruksha* (dry), *Kshama* (weak) and *Chala* (unstable), while *Pitta* predominance leads to *Osha* (burning) in *Talu* (palate) and *Kanta* (throat). *Kapha* predominance leads to *Vibaddha* (stammering and congestion) *Khurakhuarayata* (rattling like sound). Whereas *Rakta* leads to *Krichha swara* (strained voice)⁽⁷⁾.

This case report presents a patient with persistent dysphonia following micro-laryngeal surgery for vocal nodules, unresponsive to speech therapy. A diagnosis of *Vataja Swarabheda* was established based on clinical features and classical descriptions in Ayurveda. The therapeutic approach included *Gandusha* (oil pulling) therapy and internal medications indicated in *Swarabheda* (voice disorders). Outcomes were evaluated using the GRBASI perceptual scale to document recovery^(8,9). This case underscores the importance of integrating classical wisdom of Ayurveda with contemporary voice assessment methodologies for holistic care.

2. Case Description

2.1 Chief complaints and History

A 64-year-old male patient presented to the outpatient department of Shalakya Tantra at JSS Ayurveda Medical College and Hospital, Mysuru, with complaints of persistent hoarseness, speech fatigue, and whispered phonation persisting for six weeks. The symptoms had developed following micro-laryngeal surgery for a vocal fold nodule. Despite adherence to conventional post-operative protocols, including voice rest and structured speech therapy, there was no observed improvement in voice quality. The patient reported no history of chronic systemic illnesses such as diabetes mellitus, hypertension, or thyroid dysfunction. There was no recent episode of upper respiratory tract infection, nor any clinical signs suggestive of gastroesophageal reflux disease (GERD). Additionally, there was no history of tobacco or alcohol use, and no relevant familial predisposition was noted in relation to the presenting complaints.

2.2 Clinical Evaluation

General ENT examination revealed the following:

- **Nasal cavity:** Mucosa and turbinate anatomy appeared normal
- **Ear:** Bilateral tympanic membranes were intact
- **Oral cavity:** No signs of congestion or edema
- **Larynx:** Vocal cords were mobile, with a healed surgical site and no anatomical obstruction (*Fig. 1: Laryngeal Endoscopy Report*)
- **Histopathological findings:** Post-surgical histopathological evaluation showed no evidence of malignancy (*Fig. 2: Histopathological Report*)

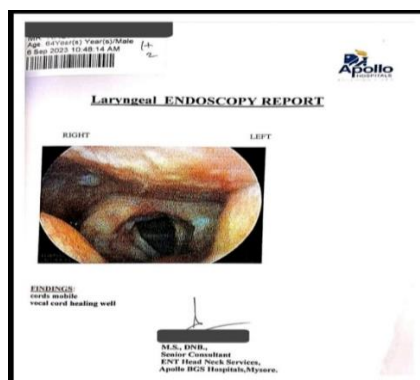


Figure 1 Showing Laryngeal Endoscopy Report



Figure 2 Showing Histopathology Report



2.3 Voice Assessment

Voice recordings were obtained at three distinct time points: baseline (Day 0), mid-treatment (Day 15), and post-treatment (Day 30). These recordings were analysed using the GRBASI scale, a perceptual voice assessment tool that evaluates six parameters: Grade, Roughness, Breathiness, Asthenia, Strain, and Instability. *Table 1* presents a detailed description of the GRBASI scale. To ensure consistency and reliability, ratings were performed by three qualified ENT faculty members using a standardized 4-point scale (0 = normal, 3 = severe).

Parameter	Description
Grade	Overall severity of dysphonia
Roughness	Irregularity in vocal fold vibration
Breathiness	Audible air escape during phonation
Asthenia	Vocal weakness or lack of power
Strain	Effortful or hyperfunctional voice quality
Instability	Variability in voice quality

Table 1 Showing GRBASI Scale

2.4 Timeline: A detailed time line of the clinical events are given in *Table 2*.

Date	Event	Details
2022–2023	Onset of symptoms	Hoarseness and speech fatigue gradually developed over two years
29/08/2023	Micro-Laryngeal Surgery	Nodule excised from mid-vocal cord (left side); histopathology benign
Sep 2023	Post-surgical voice rest and therapy	One week of complete voice rest; speech therapy initiated but voice worsened
14/10/2023	Visited Shalakyatantra OPD -Treatment initiated	Patient presents with persistent dysphonia and whispered speech for 6 weeks. Diagnosis: <i>Vataja Swarabheda</i> ; regimen started with <i>Gandusha</i> and internal medications, GRBASI -15
28/10/2023	Mid-treatment assessment	Improvements in breathiness, strain, asthenia, and instability, GRBASI -10
13/11/2023	End of treatment period	Substantial vocal recovery; enhanced clarity and strength GRBASI -7
11/12/2023	Followup	No symptom recurrence observed

Table 2 Showing Timeline of Events

2.5 Therapeutic Intervention

The treatment strategy adhered to *Shamana Chikitsa*, integrating localized therapies with internal medications specifically tailored for *Vata* pacification and mucosal restoration. Freshly prepared decoctions were administered under clinical supervision.

The *Gandusha* protocol involved holding medicated oil within the oral cavity for 4–5 minutes, followed by rinsing with warm water, performed twice daily. A detailed list of administered medications, including dosage and duration, is provided in *Table 3*.

Medication	Form & Dose	Duration	Route
<i>Yashtimadhu Taila</i>	Gargling with lukewarm oil	1 month	Local (<i>Gandusha</i>)
<i>Dashamoola Kwatha + Yashtimadhu Kwatha</i>	50 ml BD before meals	1 month	Oral
<i>Triphala Guggulu</i>	1 tablet BD after meals	1 month	Oral



Medication	Form & Dose	Duration	Route
<i>Vyoshadi Vati</i>	1 tablet BD after meals	1 month	Oral
<i>Swarnayuktha Saraswatharishta</i>	4 drops BD with milk	1 month	Oral

Table 3 Showing Therapeutic intervention

In addition to pharmacological measures, the patient was advised to incorporate *Ghrita* (clarified butter) and *Ksheera* (milk) into his daily diet. These dietary elements are traditionally recognized for their *Swarya* (voice-enhancing) and *Rasayana* (rejuvenating) properties, contributing to vocal fortification, mucosal nourishment, and systemic revitalization—essential components in the holistic recovery from *Swarabheda* ^(10,11).

2.6 Monitoring and Outcome Evaluation

Patient progress was monitored on a bi-weekly basis. Improvement in vocal quality was assessed using GRBASI scores alongside subjective feedback from the patient. No adverse effects were observed throughout the study period.

3. Results

The patient's vocal performance was evaluated using the GRBASI scale at three intervals: Day 0 (14/10/2024), Day 15 (28/10/2024), and Day 30 (13/11/2024) of the treatment regimen. The GRBASI scale assesses six parameters—Grade, Roughness, Breathiness, Asthenia, Strain, and Instability—each rated on a 4-point scale ranging from 0 (normal) to 3 (severe).

Initial assessment revealed moderate-to-severe dysphonia, with marked breathiness, strain, and instability. By Day 15, a notable reduction in asthenia, breathiness, and instability was observed, indicating an early therapeutic response. Continued improvement was documented across all six parameters, with several scores nearing normal by Day 30, reflecting substantial restoration of vocal function. Detailed gradings are provided in *Table 4*.

Component	Parameter Description	Day 0	Day 15	Day 30
Grade	Overall degree of voice hoarseness	2	2	1
Roughness	Irregularity in vocal fold vibration	2	2	2
Asthenia	Perceptible weakness in voice	2	1	1
Breathiness	Audible air escape during phonation	3	2	1
Strain	Perceived vocal strain	3	2	1
Instability	Fluctuation in voice quality	3	1	1
Total Score	Cumulative severity (max score = 18)	15	10	7

Table 4 Showing Assessment of Voice using GRBASI Scale

The steady decline in GRBASI scores over the course of 30 days demonstrates both subjective and objective enhancement in voice quality. No adverse events or symptom recurrence were noted during the follow-up period. These outcomes underscore the efficacy of Ayurvedic intervention in improving vocal strength, stability, and clarity, particularly in cases where conventional biomedical therapy yields limited results.

4. Discussion

In Ayurveda, *Swara* (voice) is regarded as a manifestation of the *Swaravaha Srotas* (vocal passage), which are governed by the three fundamental doshas—Vata, Pitta, and Kapha. Each dosha plays a distinct role in the physiology of phonation. *Prana Vata* governs the expulsion of air through the vocal tract,⁽¹²⁾ *Udana Vata* primarily facilitates *Vak Pravritti* (voice production) via vocal fold vibrations.⁽¹³⁾ *Sadhaka Pitta* influences *Buddhi* and *Medha*, thereby affecting the clarity and



emotional expressiveness of the voice.⁽¹⁴⁾ *Kapha* performs *Ambukarma*, i.e., it ensures lubrication and maintains the structural integrity of the *Swaravaha Srotas*.⁽¹⁵⁾

4.1 Taila Gandusha

Taila Gandusha is known to improve *Swarabala* (strength of voice).⁽¹⁶⁾ It may function as a vocal warm-up by relaxing tension in the laryngeal and articulatory muscles. Additionally, it enhances mandibular strength, promoting better control and support during phonation. A study involving Carnatic singers demonstrated that Gandusha reduced jitter and shimmer—acoustic markers indicating vocal fold stability and vibration consistency.⁽¹⁷⁾

4.2 Yashtimadhu Taila

Yashtimadhu Taila⁽¹⁸⁾ is formulated using *Yashtimadhu* (*Glycyrrhiza glabra*), *Amalaki* (*Emblica officinalis*), and *Ksheera* (milk). Yashtimadhu is recognized for its *Kantya* and *Rasayana* properties⁽¹⁹⁾, and has a pharmacodynamic profile marked by *Madhura Rasa*, *Guru* and *Snigdha Guna*, *Madhura Vipaka*, and *Sheeta Virya*. It contains carbenoxolone, derived from glycyrrhetic acid, which enhances mucous production, thereby improving mucosal lubrication, reducing vocal friction, and facilitating vocal clarity.⁽²⁰⁾

4.3 Dashamoola Kwatha

Dashamoola Kwatha⁽²¹⁾ exhibits *Vatahara*, *Rasayana*, and *Shothahara* properties, supporting systemic balance of *Vata* and reduction of *Shotha* (inflammation). With *Tikta-Kashaya Rasa*, *Guru-Snigdha Guna*, and *Sheeta Virya*, Dashamoola demonstrates anti-inflammatory and analgesic effects.⁽²²⁾ It also improves respiratory efficacy via *Swasahara* (respiratory support) action.

4.4 Triphala Guggulu

Triphala Guggulu⁽²³⁾ composed of *Triphala* (*Emblica officinalis*, *Terminalia bellirica*, *Terminalia chebula*), *Pippali* (*Piper longum*), and *Guggulu* (*Commiphora mukul*), was administered for its *Tridosahara*, *Vranaropana*, and *Shothahara* actions. Evidence suggests its efficacy in minimizing postoperative swelling and preserving tissue integrity. The formulation supports inflammation control and facilitates mucosal healing.⁽²⁴⁾

4.5 Vyoshadi Vati

Vyoshadi Vati⁽²⁵⁾, comprising *Trikatu* (*Zingiber officinale*, *Piper nigrum*, *Piper longum*), *Amlavetasa* (*Garcinia pedunculata*), *Talisapatra* (*Abies webbiana*), *Chitraka* (*Plumbago zeylanica*), and *Trijataka* (*Cinnamomum zeylanicum*, *Elettaria cardamomum*, *Cinnamomum tamala*) was selected for its *Swarya*, *Kaphavatahara*, and respiratory applications—

particularly relevant in *Swarabheda*. It enhances mucociliary clearance and supports phonatory stability.

4.6 Swarnayukta Saraswatharishta

Swarnayukta Saraswatharishta⁽²⁶⁾ contains *Brahmi* (*Bacopa monnieri*), *Shatavari* (*Asparagus racemosus*), *Ashwagandha* (*Withania somnifera*), and *Swarna* (gold). It is traditionally described as *Vak Vishuddhikara* (enhances vocal purity) and *Ojo Vardhaka* (boosts overall vitality), and is recommended in the management of voice disorders.

5. Conclusion

This case report reinforces the potential efficacy of Ayurveda in managing *Swarabheda*, especially in patients with chronic or post-surgical voice disorders where conventional therapies have shown limited success.

Given the rising prevalence of voice disorders among both professional and non-professional voice users—particularly in vocally demanding cultures such as India—integrating traditional systems like Ayurveda may offer a safe, natural, and cost-effective alternative or complement to standard care. To validate these observations and establish standardized Ayurveda protocols for dysphonia management, further research involving controlled clinical trials and objective vocal assessments is essential. Nevertheless, this case provides compelling evidence of the integrative potential between the ancient wisdom of Ayurveda and the advancements of modern voice science.

6. Patient perspective:

I had undergone surgery for a nodule on my voice box, but my voice deteriorated further after surgery. I tried voice therapy for about one and a half month, but it didn't really help, and the doctor said I might need another surgery. I didn't feel comfortable with undergoing another surgery so I came to try Ayurveda to improve my voice. After starting the Ayurveda treatment, clarity of my voice started to improve gradually, within 1 month of treatment I have regained most of my voice back and I'm very happy with the outcome.

7. Patient Consent Declaration

The authors confirm that they obtained the patient's permission to share details of this case, including related images and information, for publication. The patient understands that while their name and initials won't be used and steps will be taken to protect their identity, complete anonymity may not be guaranteed.



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None.

9. Conflicts of Interest
The authors declare no conflicts of interest.

Reference

- Verdolini, Katherine; Rosen, Clark A.; Branski, Ryan C., eds. (2014). "Vocal Fold Nodules (Nodes, Singer's Nodes, Screamer's Nodes". *Classification Manual for Voice Disorders-I*. Psychology Press. pp. 37–40. ISBN 978-1-135-60020-4
- Valson Sheyona, Usha Devadas, The Prevalence and Impact of Voice Problems in Nonprofessional Voice Users: Preliminary Findings, Volume 36, Issue 3, 2022, Pages 383-388
- Menon UK, Raj M, Antony L, Soman S, Bhaskaran R. Prevalence of Voice Disorders in School Teachers in a District in South India. *J Voice*. 2021 Jan;35(1):1-8. doi: 10.1016/j.jvoice.2019.07.005. Epub 2019 Jul 23. PMID: 31350112.
- Regina Helena Garcia Martins, Henrique Abrantes do Amaral, Elaine Lara Mendes Tavares, Maira Garcia Martins, Tatiana Maria Gonçalves, Norimar Hernandes Dias. Voice Disorders: Etiology and Diagnosis, *Journal of Voice*, Volume 30, Issue 6, 2016.
- Shin YS, Chang JW, Yang SM, Wu HW, Cho MH, Kim CH. Persistent dysphonia after laryngomicrosurgery for benign vocal fold disease. *Clin Exp Otorhinolaryngol*. 2013 Sep;6(3):166-70. doi: 10.3342/ceo.2013.
- Sushrutha. Sushrutha Samhitha Dalhana Comm. Nibandhasangraha, Gayadasacharya Comm. Nyayachandrika Panjika on Nidanasthana. Jadavji Trikamji Acharya. Chaukhambha Orientalia, Varanasi; 2021, Uttara Tantra 53rd Chapter, Shloka No. 3, p.770
- Charaka. *Charaka Samhita with Chakrapani Teeka*. Edited by Jadavaji Trikamji Acharya. 1st ed. Varanasi: Chaukhambha Surbharati Prakashan; 2008. Chikitsasthana 7th Chapter, Shloka No. 53, p. 603.
- Hirano M. *Clinical Examination of Voice*. New York: Springer-Verlag; 1981. p. 81–84.
- Ricci-Maccarini A, Schindler A, Mozzanica F, Murry T, Dejonckere P. Extended GRBAS Scale: A Comprehensive Perceptual Evaluation of Dysphonia. *CoMeT Collegium*; 2021.
- Charaka. *Charaka Samhita Sutrasthana*. Chapter 27: Annapanavidhi Adhyaya. In: Sharma PV, editor. *Charaka Samhita – Text with English Translation and Critical Notes*. Varanasi: Chaukhambha Orientalia; 2014. p. 492–494.
- Vagbhata. *Ashtanga Hridaya Sutrasthana*. Chapter 5: Dravadravya Vijnaneeya Adhyaya. In: Tripathi B, editor. *Nirmala Hindi Commentary*. Varanasi: Chaukhambha Sanskrit Pratisthana; 2019. p. 72–74.
- Vāgbhāṭa. *Ashtanga Hridaya*, Sutrasthana, Chapter 12, Verse 5. In: Upadhyaya YN, editor. *Vidyotini Hindi Commentary*. 14th ed. Varanasi: Chaukhambha Sanskrit Sansthan; 2021. p. 171.
- Vagbhata. *Ashtanga Hridaya with commentaries Sarvanga Sundara of Arunadatta and Ayurveda Rasayana of Hemadri*. Edited by Harishastri Paradkar Vaidya. 1st ed. Varanasi: Krishnadas Academy; 2002. Chapter No 12. Shloka No. 9, p. 158.
- Vagbhata. *Ashtanga Hridaya with commentaries Sarvanga Sundara of Arunadatta and Ayurveda Rasayana of Hemadri*. Edited by Harishastri Paradkar Vaidya. 1st ed. Varanasi: Krishnadas Academy; 2002. Chapter No 12. Shloka No. 13, p. 159.
- Vagbhata. *Ashtanga Hridaya with commentaries Sarvanga Sundara of Arunadatta and Ayurveda Rasayana of Hemadri*. Edited by Harishastri Paradkar Vaidya. 1st ed. Varanasi: Krishnadas Academy; 2002. Chapter No 12. Shloka No. 26, p. 162.
- Charaka. *Charaka Samhita – Sutrasthana – Chapter 5: Matrashiteeya Adhyaya*. In: Nair SSR, Deole YS, editors. *Charaka Samhita Research, Training and Skill Development Centre*; 2020. p. 1–25.
- Usha M* and Jayashree S Bhat. The Ease and Effects of Oral Rinsing in the Acoustic Parameters of Voice in Carnatic Female Singers: A Warm-Up Protocol. *J Complement Med Alt Healthcare*. 2024; 12(4): 555843.
- Sharangadhara. *Sharangadhara Samhita – Madhyama Khanda, Chapter 9*. In: Vidyasagar PS, editor. 1st ed. Varanasi: Chaukhambha Surabharati Prakashan; 2003. p. 123.
- Bhavamishra. *Bhavaprakasha Nighantu*. Commentary by Chunekar KC. Varanasi: Chaukhambha Bharati Academy; 2010. p. 182–183.



20. Mangain, Ravindra Kumar; Gupta, Meenu¹; Mangain, Pratibha; Verma, Sanjeev Kumar²; Pruthi, Deep Shankar¹; Kandwal, Abhishek³; Saini, Sunil⁴. The efficacy of an ayurvedic preparation of yashtimadhu (*Glycyrrhiza glabra*) on radiation-induced mucositis in head-and-neck cancer patients: A pilot study. *Journal of Cancer Research and Therapeutics* 16(3):p 458-462, Apr–Jun 2020. | DOI: 10.4103/jcrt.JCRT_831_16
21. Bhavamishra. Bhavaprakasha Nighantu. Commentary by Chunekar KC. Varanasi: Chaukhambha Bharati Academy; 2010. p. 210–212.
22. Parekar RR, Bolegave SS, Marathe PA, Rege NN. Experimental evaluation of analgesic, anti-inflammatory and anti-platelet potential of Dashamoola. *J Ayurveda Integr Med.* 2015 Jan-Mar;6(1):11-8. doi: 10.4103/0975-9476.146565. PMID: 25878458; PMCID: PMC4395922.
23. Sharangadhara. *Sharangadhara Samhita – Madhyama Khanda*. In: Vidyasagar PS, editor. 1st ed. Varanasi:
24. George, Alsha Thankam; Hiranya, Shivananda; Dayakar, Mundoor Manjunath. Analgesic, anti-inflammatory, and wound healing efficacy of Triphala guggulu and ketorolac tromethamine after periodontal flap surgery: A randomized double-blind clinical trial. *International Journal of Ayurveda Research* 6(1):p 32-37, Jan–Mar 2025. | DOI: 10.4103/ijar.ijar_135_24
25. Govind Das Sen. Bhaishajya Ratnavali. Edited by Pandey GS. Varanasi: Chaukhambha Sanskrit Sansthan; 2009. p. 491–493.
26. Govind Das Sen. Bhaishajya Ratnavali. Edited by Pandey GS. Varanasi: CChaukhambha Sanskrit Sansthan; 2009. p. 96–98.