

Ayurvedic Management of Subepithelial Vocal Cord Cyst: A Case Study

SUNDARA RAMAN¹, S ASWATHY KRISHNA², BN ASHWINI³, K SIVABALAJI⁴

ABSTRACT

Vocal fold cysts, otherwise called as vocal cord cyst, are benign masses formed on the membranous vocal folds. Present line of treatment in contemporary medical science is surgery followed by supplementary voice therapy. There are high chances of recurrence of the cyst after surgical excision. This report deals with a single case which was effectively managed with ayurvedic intervention. A 38-year-old female patient presented with hoarseness of voice, difficulty to produce high pitch notes, variations in pitch while talking. Rigid endoscopy was done and there was presence of solitary subepithelial vocal fold cyst in the middle of larynx. Treatment was done with Amapachana with Swasamrutam capsule and gorochanadi, two tablets twice daily after food. Snehapana with Varanadighrita + Guggulutikthaka ghrita in arohana matra for 4 days; Abhyanga and bashpasweda for 1 day; Virechana with TrivrtChurna 20 gm given at 7 am; Nasya with Anuthaila for 7 days; Matravasti with Sahacharadi Mezhlukupakam 60 mL for 5 days. The hoarseness of voice and voice clarity improved on completion of the treatment. A repeat endoscopy showed that the cyst was no longer present. Subepithelial vocal cord cyst can be effectively managed with ayurvedic intervention principles of amapachana, agnideepana and ojovardhana.

Keywords: Antanvidradhi, Ayurveda, Vocal fold

CASE REPORT

A 38-year-old female patient presented with hoarseness of voice, difficulty to produce high pitch notes, variations in pitch while talking and intermittent pain near the larynx area while speaking since last one month. The patient was apparently well in the childhood, but due to abusive parents she had a stressful family environment and thereby got addicted to alcohol and smoking at the age of 16 years but later quit at 20 years of age.

In 2012, her voice became fibrillated and the patient consulted an Ear Nose Throat (ENT) specialist. On endoscopy, condition was diagnosed as Subepithelial vocal cord cyst and she had undergone surgery for the same in 2012. Thereafter, the patient was asymptomatic. Later in 2014, the patient started to experience that the hoarseness of voice reappeared mildly. The intensity of hoarseness of voice, difficulty to produce high pitch sounds and variations in pitch increased considerably affecting her daily life. Hence, the patient came for seeking ayurvedic cure. The patient was a nonvegetarian by diet with no history of allergies, regular bowel and micturition, good appetite and disturbed sleep.

Rigid Laryngeal endoscopy was done which revealed presence of solitary subepithelial vocal cord cyst along middle of larynx [Table/Fig-1].

The treatment regimen was: Amapachana with Swasamrutam capsule and gorochanadi gulika two each tablet twice daily after food. Snehapana with Varanadighrita + Guggulutikthakaghrita in arohanamatra for four days. Abhyanga and bashpasweda for one day. Virechana with Trivrt Churna 20 gm given at 7 am. Nasya with Anuthaila for seven days. Matravasti with Sahacharadi Mezhlukupakam 60 mL for five days [Table/Fig-2] [1].

The patient was advised to continue the medications of Swasamrutam tablet, Gorochanadi tablet and Anu thaila for nasal instillation for next three months, follow dietary regimen which included avoidance of spicy and junk foods, avoid voice strain, to do regular exercise and



[Table/Fig-1]: Endoscopic image before treatment showing presence of solitary vocal cord cyst.

Day	Patient status	Treatment
Day 1 (18/09/2019)	Complained of hoarseness of voice Bloating of abdomen	Amapachana and Agni vardhana line of treatment with internal medications. • Swasamrutam tablet 2 tablet twice daily after lunch and dinner. • Gorochanadi tablet 2 tablet twice daily after lunch and dinner.
Day 2 (19/09/2019)	Complained of hoarseness of voice. Free Bowel movements Had sound and deep sleep	1. Swasamrutam tablet. 2 tablet twice daily after lunch and dinner. 2. Gorochanadi tablet 2 tablet twice daily after lunch and dinner.
Day 3 (20/09/2019)	Hoarseness of voice reduced mildly. Normal bowel movements Appetite: good	1. Swasamrutam tablet. 2 tablet twice daily after lunch and dinner. Gorochanadi tablet 2. tablet twice daily after lunch and dinner.
Day 4 (21/09/2019)	Hoarseness reduced. Appetite and bowel normal.	1. Swasamrutam tablet. 2 tablet twice daily after lunch and dinner. Gorochanadi tablet 2. tablet twice daily after lunch and dinner.
Day 5 (22/09/2019)	Appetite and bowel normal. Attained signs of amapachana. Appetite at 10 .00 am.	Started snehapana with Varanasi Ghrita+guggulutikthakamGhrita - 25 mL early morning in empty stomach.

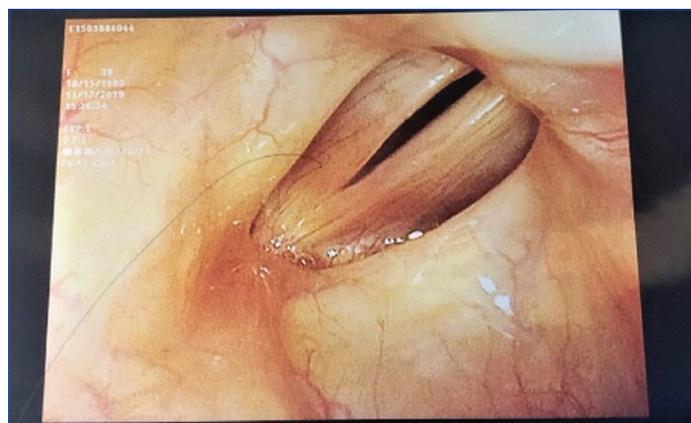
Day 6 (23/09/2019)	Bowel-normal % of smell of the ghee in the burp intermittently, this can occur at the beginning of samyak snigdha lakshanas [1]. Appetite at 11.30 am	Snehapana 2 nd day with Varanadi + gugguluthikthakamghritam 60 mL early morning in empty stomach
Day 7 (24/09/2019)	Patient felt giddiness after taking snehapana. Complained of burping of ghee and smell of ghee on belching. This occurs when one attains samyak snigdha lakshana [1]. Hunger felt at 12.30 pm (As the dose of medicated ghee is increased day by day the time of appetite also is delayed)	Snehapana 3 rd day with Varanadighrita + gugguluthikthakamghritam 100 mL early morning in empty stomach
Day 8 (25/09/2019)	Belching of ghee. Nausea and aversion towards the ghee. Hunger felt at 3 pm	Snehapana 4 th day with varaVaranadighrita + gugguluthikthakamghrita 150 mL early morning in empty stomach
Day 9 (26/09/2019)	Loose mucus stool. Feels giddiness.	Abhyanga with Dhanwantaramthailam followed by Bashpaswedam.
Day 10 (27/09/2019)	Virecanavegas- 12 times, initially brownish loose stool later yellowish green fluid in the end. Patient was stable after virecana.	Virechana with Trivrit Churna- 20 gm at 7 am.
Day 11 (28/09/2019)	Clarity of voice improved. Feels lightness of body.	Marsha Nasya with Anuthaila 15 drops on each nostril
Day 12 (29/09/2019)	Patient feels better. Feels considerable reduction in hoarseness of voice.	Marsha Nasya with Anu Thaila-15 drops on each nostril.
Day 13 (30/09/2019)	Patient is able to sing during chanting. Less hoarseness in voice.	Marsha nasya with Anu thaila 15 drops in each nostril
Day 14 (1/10/2019)	Voice became much clear. Able to sing without much strain	Marsha nasya with Anu thaila 20 drops in each nostril.
Day 15 (2/10/2019)	Voice is very clear and audible	Marsha nasya with Anu thaila 20 drops in each nostril.
Day 16 (3/10/2019)	Clarity of voice.	Marsha nasya with Anu thaila 20 drops in each nostril.
Day 17 (4/10/2019)	Felt better with her normal voice after the course of nasya.	Matravasthi with Sahacharadi Mezhukupakam-60 mL.
Day 18 (5/10/2019)	Voice became very clear. Patient felt emotionally stronger. Vasthi retention time: 4 hours.	Matravasthi with Sahacharadi Mezhukupakam 60 mL.
Day 19 (6/10/2019)	Patient feels well. Appetite: Normal. No voice strain. Vasthi retention duration: 6 hours	Matravasthi with Sahacharadi Mezhukupakam- 60 mL
Day 20 (7/10/2019)	Normal clarity of voice attained,	Matravasthi with Sahacharadi Mezhukupakam-60 mL.
Day 21 (8/10/2019)	No feeling of vocal strain while speaking. Good clarity of voice.	Matravasthi with Sahacharadi Mezhukupadam-60 mL.
Day 22 (9/10/2019)	Rigid endoscopy done and found the subepithelial vocal cord cyst was not present.	Patient discharged.

[Table/Fig-2]: Timeline [1].

The dose of snehapana (medicated ghee) was fixed considering the digestive power of the patient. Time of appetite is assessed to understand the time taken for digestion of the medicated ghee and to fix the dose for next day considering the digestive power

follow stress-free lifestyle. Clarity of voice improved significantly and the patient was fully satisfied with the results. The patient gained her normal voice clarity after the treatment. Endoscopic examination was repeated after the completion of the treatment on 22nd day which showed that the cyst had completely resolved [Table/Fig-3].

Follow-up was done at two months after the treatment and the patient was healthy and asymptomatic throughout this period.



[Table/Fig-3]: Endoscopic image after treatment showing the cyst had completely resolved.

DISCUSSION

Vocal cord lesions include nodules, polyps and cysts which are benign growths [2]. It is mainly caused due to repetitive overuse or misuse of voice or due to vocal cord trauma, extra muscle tension when speaking, smoking, alcohol use, sinusitis, allergies and rarely hypothyroidism [3]. Patients with these lesions mainly present with hoarseness of voice, uneasiness in breathing, multiple voice tone, loss of vocal range, vocal fatigue or loss of voice. A vocal cord cyst, usually referred as “Vocal fold cyst” is a localised benign inflammation of fluid filled sac or a sac filled with semisolid material that is present either in the subepithelial fold of vocal cord mucosa or in the vocal cord ligament. Vocal cord cyst may also occur due to excess usage of voice when a person is having upper respiratory tract infection or laryngitis [4]. The vocal cord cyst can either be of two types namely subepithelial vocal cord cyst and ligament vocal cord cyst. Modern medical science treats the condition with surgery and symptomatic treatment with voice rest and voice therapy but the effects are not sustained.

The subepithelial vocal cyst can be treated with amapachana, agnideepana and thereby, ojovardhaka line of treatment. Swasamrutham tablet contains vasa, vibheethaki, hareethaki, pippali, thalisapatra, marica, shunti, amalaka and jati which have deepana-pachana property and reduces inflammation.

Gorochanadi tablet contains Gorochana, mrigashringa bhasma, rudraksha, Chandana, vacha, usheera, kamala, cat semen, nagabhasma etc. It is indicated in jwara (fever), kasa (cough), swasa (respiratory disorders), in digestive disorders such as bloating, hyperacidity and diseases of throat. Gorochana is having tikta rasa (astringent taste), katu vipaka hence, is known as kapha pittahara (reduces kapha and pitta among the tridoshas) [5].

Amapachana and agnideepana are essential pre-procedures of snehapana. Snehapana with varanadi and gugguluthiktaka ghrita helps to take the vitiated doshas (deranged tridoshas) to the koshta (stomach) and to facilitate for virechana (purgation). Varanadi ghrita alleviates vata and kapha doshas, and also indicated in treatment of internal tumors and is a good immunomodulator [6]. Gugguluthiktaka ghrita is having drugs with tikta rasa which is tridoshahara, sophahara and asthidhathu poshaka [7].

Virechana helps to expel the vitiated doshas from the body and to correct the deranged pitta and kapha. Trivrut having katu rasa (Pungent taste), ushna virya (hot potency) and katu vipaka is indicated for sukhavirecana [8]. It makes the body and senses lighter and facilitates easy and effective absorption of the medicines.

Marsha nasya with anuthaila helps in clearing of congestion, discomfort in the head and throat, improves the functioning of the sense organs, strengthen the muscles of neck and expels excessive kapha. It improves the voice and strengthens the functions of vocal cord. Acharya Charaka explained that nasya with Anuthaila liquifies

the dosas and extracts it out without destructing the site thus, improving efficacy of Indriya (sense organs) [9].

Matravasthi with sahacharadi mezhukupaka is vatakaphara and indriyabalakara. This vasti drug first reaches the pakwashaya (large intestine) which is the main seat of vata. With the action on chief site (large intestine). Vasthi dravya takes control of vata all over the body. Matravasthi has dosasamaka as well as rasayana property [10].

CONCLUSION(S)

The endoscopic findings done before and after treatment reveals that the vocal cyst has been completely resolved with ayurvedic intervention. From this case, it can be concluded that Amapachana, snehapana, virechana, nasya and matravasthi is effective in managing subepithelial vocal cord cyst.

REFERENCES

- [1] Ramteke R, Meharjan T, Vinodkumar G. An open clinical trial to analyze Samyak Snigdha Lakshana of Shodhananga Snehapana with Mahatikthakam Ghritam in Psoriasis. *AYU (An International Quarterly Journal of Research in Ayurveda)*. 2011;32(4):519.
- [2] Nerurkar N, Narkar N, Joshi A, Kalel K, Bradoo R. Vocal outcomes following subepithelial infiltration technique in microflap surgery: A review of 30 cases. *The Journal of Laryngology and Otology*. 2007;121(8):768-71.
- [3] Sadri M, McMahon J, Parker A. Laryngeal dysplasia: Aetiology and molecular biology. *The Journal of Laryngology & Otology*. 2005;120(3):170-77.
- [4] Bohlender J. Diagnostic and therapeutic pitfalls in benign vocal fold diseases. *GMS Cur Top in Otorhinolaryngol Head Neck Surgery*. 2013;12:Doc01.
- [5] Yadav S, Kadu AS, Chandel V, Verma P. A critical review of vishaghna dravya mentioned in bhavprakash nighantu. *Int J Health Sci Res*. 2020;10(1):210-15.
- [6] Ramadas K, Hariharan I, Kumar R, Ravindran D, Muwonge R, Pillai M. Efficacy of Varunadi Ghrita (polyherbal compound) in treated head and neck cancer cases as a biological response modifier. *AYU (An International Quarterly Journal of Research in Ayurveda)*. 2014;35(2):168.
- [7] Patil BD, Sonaje MJ. Role of guggululiktaka ghrita in the management of osteoarthritis W.S.R. to knee joint. *International Journal of Research in Ayurveda and Pharmacy*. 2013;4(1):71-73.
- [8] Kolhe R, Acharya RN. Trivrut and its important in the classical text of ayurveda: A comprehensive review; research and reviews. *Journal of Ayurvedic Science, Yoga and Naturopathy*. 2014;1(12):33-53.
- [9] Bhardwaj V, Chhouchary R, Sharma S, Singh A. Management of vataja pratishyaya with chitraka haritaki avleha and anu taila nasya. *World Journal of Pharmaceutical Research*. 2017;6(10):1063-69.
- [10] Dave A, Bhatt N, Shah M, Mehta C, Shukla V. A clinical study of Matra Vasti and an ayurvedic indigenous compound drug in the management of Sandhigatavata (Osteoarthritis). *AYU (An International Quarterly Journal of Research in Ayurveda)*. 2010;31(2):210.

PARTICULARS OF CONTRIBUTORS:

1. Director, Nilgiris Ayurveda Treatment Centre Pvt. Ltd, Coonor, Tamil Nadu, India.
2. PG Scholar, Salakyatantra, Amrita School of Ayurveda, Kollam, Kerala, India.
3. Associate Professor, Salakyatantra, Amrita School of Ayurveda, Kollam, Kerala, India.
4. Assistant Professor, Salakyatantra, Amrita School of Ayurveda, Kollam, Kerala, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. S Aswathy Krishna,
Amrita School of Ayurveda, Kollam, Kerala, India.
E-mail: aswathykrishna3891@gmail.com

PLAGIARISM CHECKING METHODS: [Jain H et al.]

- Plagiarism X-checker: Mar 18, 2020
- Manual Googling: Sep 25, 2020
- iThenticate Software: Oct 24, 2020 (3%)

ETYMOLOGY: Author Origin

AUTHOR DECLARATION:

- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. Yes

Date of Submission: **Mar 17, 2020**
Date of Peer Review: **May 08, 2020**
Date of Acceptance: **Sep 25, 2020**
Date of Publishing: **Nov 01, 2020**