Case Reports

December 2014

Sulcus Vocalis

Dr. Sahni's Homoeopathyclinic.com

Dr. Sahni BS

Introduction

Sulcus vocalis is a thinning or absence of a special layer of tissue, called the **superficial lamina propria**, a tissue covering the vocal cord required to vibrate in order to produce sound. The lack of this tissue causes a divot in the vocal cord, which gives the disorder its medical name. Sulcus means “cleft” or “furrow” in latin.

Sulcus vocalis has a very characteristic appearance of a furrow or a trench in the vocal fold, which can vary in depth (Figure 1).

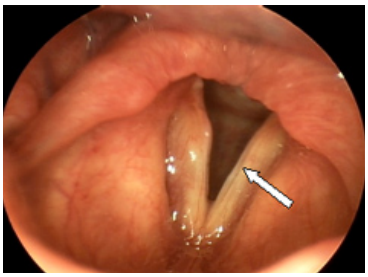

Figure1: The subtle groove on the edge of the vocal fold (arrow) represents a sulcus vocalis.

It is usually found at the margin of the vocal fold, oriented parallel to its length. It can stretch the entire length of the vocal fold. The segment involved with the sulcus usually does not vibrate normally during voicing, a fact that is apparent on stroboscopic examination.

When the vocal folds are brought together to voice, the loss of tissue along the length of the folds usually causes a gap that is the shape of a spindle to appear between them (Figure 2).

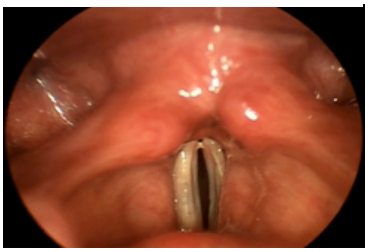

Figure 2: The loss of tissue associated with sulcus makes it impossible for the vocal folds to close normally during voicing.

This gap causes air to leak out during voicing, which is probably one of the main reasons for the perception of increased effort needed to voice.

Typically, sulcus vocalis is subtle and commonly overlooked; the diagnosis is an extremely hard one to make. It is routinely missed by examiners who do not use stroboscopy, since so much depends on seeing that part of the vocal fold is not vibrating normally.

Symptoms

Sulcus vocalis causes a characteristic harsh, reedy hoarseness. People with sulcus frequently must exert unusual effort to produce voice, and find it more difficult to be heard over background noise. Because of the change in pitch which sometimes accompanies this disorder, men with sulcus sometimes complain that they are mistaken for women on the telephone.

Sulcus is usually a lifelong condition. So, even though the hoarseness may be worse on certain days, it is always present and the voice is never normal. Most people cannot recall ever having had a normal voice as an adult, although it is not rare to have had a normal voice as a child.

Treatment

Overall, the treatment goal is to improve glottic efficiency—reduce vocal effort and improve vocal quality.

However, the treatment of sulcus vocalis is controversial. The main difficulty is that there has been no perfect substitute for the missing superficial lamina propria tissue.

Anatomic change in the vocal fold is difficult to treat medically. Any intercurrent medical conditions affecting the voice (eg, reflux laryngitis, allergic rhinitis) are evaluated and treated. Prior to considering surgical therapy, all known sources of mechanical trauma are maximally reduced to determine reversibility and hopefully prevent a post-operative recurrence. This is accomplished in part by medical and speech therapy to reduce vocal trauma through improved phonatory technique and vocal hygiene.

Surgery is reserved for unresolving lesions that have resulted in persistent troublesome dysphonia. Surgical candidates must be willing to postpone speaking and singing engagements for at least 3 months postoperatively. Patients presenting with dysphonia are evaluated by indirect laryngoscopy and videostroboscopy, with particular attention to vocal fold mobility; glottic closure; and the presence, amplitude, and symmetry of the mucosal wave.

Diagnostic laryngoscopy may be necessary prior to invasive procedures aimed at altering laryngeal anatomy in order to have a more complete understanding of vocal fold pathology and potential for surgical treatment.

Complications

Surgical complications are related to laryngoscopy, vocal cord incision, and implantation of material for medialization. Complications of laryngoscopy include damage to or avulsion of teeth; oral mucosal laceration; and pressure damage to the tongue, including numbness or altered taste. Any vocal fold incision can result in further scar formation with recurrence of the sulcus.

Case Report

A male patient, age 42, reported the onset of the following symptoms in late June 2010:

- During sleep - sudden spasm of throat, unable to breath/choking of windpipe
- Head Shaking while trying hard to breath
- Difficulty in speaking

To remedy, the patient would take water and the symptoms remained for about 30 to 60 seconds, in each occasion.

The patient first visited MGM Hospital, CBD Bealpur, in Navi Mumbai, Maharashtra, India and was put on medication w.e.f 10/7/2010. The patient was also advised resting and avoiding too much pressure on the throat (See picture 1—page 4). Since the situation was repeating, he was referred to consult ENT specialist, where in endoscopy was performed and was advised to take Domrab tablet (see picture 2—page 5) dated 12/7/210.

As the symptoms remain unchanged, the patient again consulted MGM hospital. As the treatment was not helping, the patient was referred to Sr. ENT specialist.

The Sr. ENT specialist advised the following tests on 31/7/2010:

- Spirometery
- CT, PNS (see picture 3—page 6)
- X-Ray Chest

Case Report

All the above tests were normal, the patient was prescribed Allegra, Asthalin and Otiven nose drops on 31/7/2010 for 7 days (See picture 4—page 7).

On 26/08/2010, the frequency of the symptoms along with the spasm increased suddenly! The patient again consulted ENT specialist at MGM on 27/08/2010 (see picture 5— page 8) and was diagnosed with "Sulcus Vocalis".

The patient was asked to continue the treatment. With no relief in sight, visited Sr. ENT Specialist again on 28/08/2010 and was suggested to scheduled microscopy & bronchoscopy on 30/08/2010 and undergo correction with laser surgery.

The patient and his family unanimously decided not to go ahead with surgery and seek homoeopathic treatment for some duration to see if there was improvement and then decide on surgery.

Patient visited Dr. Sahni on 03/10/10, and based on the test reports and confirmed diagnosis of sulcus vocalis, along with the overall symptoms presented by the patient, was prescribed Lachesis 30.

On follow-ups dated:

- 15/10/10: patient reported reduction in spasm to occasional and less frequent. The same medicine was repeated and again on 30/10/10 (see picture 6—page 9).
- 01/12/10: the patient reported further reduction on the occurrence of spasm, although not completely healed. The patient was prescribed placebo to continue the healing in body without any additional dosage of Lachesis (see picture 7—page 10).
- 12/2/11: the patient was again prescribe Lachesis 30, with reduced dosage, followed by placebo for 3 days (see picture 8—page 11).

End of March 2011, the patient reported that all of his symptoms were cured and his difficulty in speaking was no longer there, hence, medication was stopped. The main medicine used in the case was Lachesis 30.

Conclusion

Modern tests and well diagnose of the disease along with homoeopathy medicine avoided the need for surgery and relieved the patient of all his symptoms.

Bibliography

1. To the patient for providing all the documents related to the case with permission to publish to the same.
2. Document material courtesy from:
    - http://emedicine.medscape.com/article/866094-treatment
3. More Information Search:Surgical Management of Sulcus Vocalis & Vocal Fold Scarring

consultation

M.G.M. HOSPITAL & RESEARCH CENTRE

9969228370

1A, C.B.D. (Belapur), Navi Mumbai-400 614

History: Tel. : 2757 2293, 2757 0219, Fax : 91-22-2757 6747

→ Started getting spasm in throat by end of June during sleeping leading to choking of wind pipes/

OPD CASE PAPER

OPD NO. : 10014236

PATIENT NO. : 07006251

DATE : 10/07/2010 11:52:36

Name :

Address :

Age/Sex : 42 Years / Male

Religion : HINDU

Occupation : SERVICE

Tel. Number : 27743840

Consultant : Dr. PRAKASH ZODPE

Category : PRIVATE

Ref. Dr. :

Company Name :

251397

Complaints : Gr. [illegible]

/ Ref GERD

History (Family/Past) :

Examination & Findings : Adv

- voice rest

Investigations :

- OGD Scopy

Advice :

- T. Emzocon (5mg) × (3)d

- Cap. Esogard (20mg) 1 [illegible] dinner × (10)d

- Syr. [illegible]

- Inhalade plus soln [illegible]

Signature of Dr. in charge

HINDUJA HOSPITAL
Accredited by NABH

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Name :

H. H. No. :

12/7/0

℞

T. Domrab (2)

BBF · BΔ

Syp Mucain

25sf - 2 tsf - 2 esf

6wk

Dr's Name / Signature / Date

DR. MILIND V. KIRTANE
MS. (ENT.), DORL
CONSULTANT-ENT SURGEON

C-5

P. D. HINDUJA NATIONAL HOSPITAL & MEDICAL RESEARCH CENTRE

(Established and managed by the National Health & Education Society)

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D E P A R T M E N T O F I M A G I N G

NAME :	AGE : 42 Y	SEX : M
HH.No : 1021310	ADM NO :	ACC NO :
REF BY : DR. SHUKLA AMITAV	ORD NO : 14910433	LOCATION : OPD
ATTEND DATE : 31/07/2010 12:36 PM		

****EXAMINATION****
CT PNS LIMITED

****REPORT DETAILS****

Plain thin coronal sections of the paranasal sinuses was performed.

Deviation of the anterior aspect of the nasal septum is seen to the right. Focal polypoid mucosal thickening seen in the roof of the right maxillary sinus with minimal mucosal thickening in the inferior alveolar recess of bilateral maxillary sinus. Bilateral maxillary sinus infundibulum appears unremarkable.

Rest of the visualised paranasal sinuses appears unremarkable.

Visualised bones reveals no obvious significant abnormality.

Visualised orbital soft tissues and brain parenchyma reveals no obvious significant abnormality.

Impression:

Deviation of the anterior aspect of nasal septum to the right with minimal mucosal thickening in the inferior alveolar recess of bilateral maxillary sinus. Focal polypoid mucosal thickening in the roof of the right maxillary sinus.

DR. S. R. MAHESHWARI - DNB, DMRD
CONSULTANT - RADIOLOGIST

**** End Of Report ****

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31/7/10

℞ :

- T. Allegra (180 mg)

0 ——————→

- T. Asthalin (2 mg)

1 ——————→

- Otrivin nose drops

3° — 3° — 3°

× (7) days

DR. AMITAV SHUKLA
M.S. F.R.C.S., D.L.O. (London)
Consultant ENT Surgeon,
Section Co-ordinator-E.N.T.
(Reg. No. 70058 MMC)
P.D. HINDUJA NATIONAL HOSPITAL
& MEDICAL RESEARCH CENTRE

mon : 02:00 pm to 07:00 pm
TUE : 10:00 Am to 01:00 pm
Fri : 02:00 pm to 07:00 pm
Sat : 10:00 Am to 01:00 pm

G-7

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10/014236

MGM Hospital, CBD
DATE 27/8/13
Dr. Name Dr. Prakash
Consultation / Follow up / Procedure
Amount Rs. 150 / Rs. 80 / Rs. HOD
Receipt No. 49537
Signature

Rx

Im → Sulcus vocalis
c̄ small ant. vc web.

— Cap. Damrab (20mg)
1 hr dinner
x 10 d

Adv

— Early Dinner

— No oily & spicy & fastfood

— Deep Breathing Exer.

— Speech Therapy.
(Mrs. Girija Gore)

D/54, sect.12
Op. Gokhale Highschool,
12:30 - 1:30
6:30, 9:30
9833323458.

C-10

OPD - Khargar

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Authorised Medical Attendent, ONGC Ltd., CGEWCC

42 yrs / M

Δ sulcus vocalis

Rx (1) Lachesis 30 ½ dram pills
3 x 1 empty stomach
x 5 days
[No Repetition]

(2) PL 30 2 dram pills
3 — 3 — 3 Bf
BF L D

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3-10-10

Repeat
15-10-10

30-10-10 Rx (2) PL 30 2 dram pills
3 — 3 — 3 Bf
BF L D

(1) Lachesis 30 ½ dram pills
3 x 1 empty stomach
x 3 days
[No Repetition]

30-10-10

TUESDAY CLOSED

TIMING : 10.00 TO 1.00 AM 05.00 TO 8.00 PM

C-60

onege - Khargar

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42 yrs/m

Δ Sulcus vocalis

℞ ① PL 30 ½ 02 pills
3 — 3 — 3 BF
BF L D

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48 yrs
M.

Δ Sulcus Vocalis.

℞ ① Lachesis 30 ½ Drams pills
3 × 1 Empty stomach × 1 day (once)
(No repetition)

② P L 30 2 Dram pills
3 × 1 Empty stomach

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2/2/11