

Aphonia Followed by Endotracheal Intubation – A case study

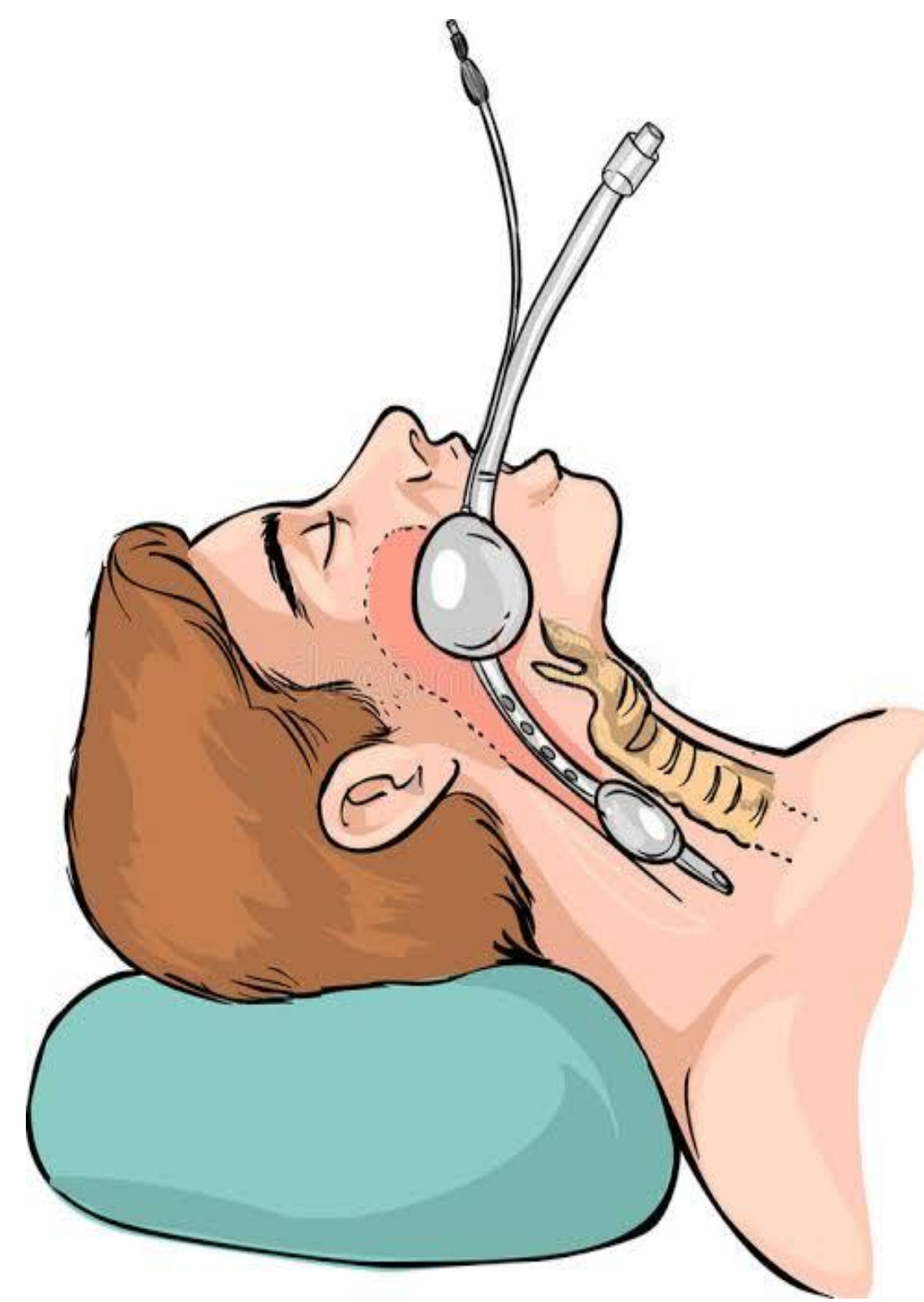
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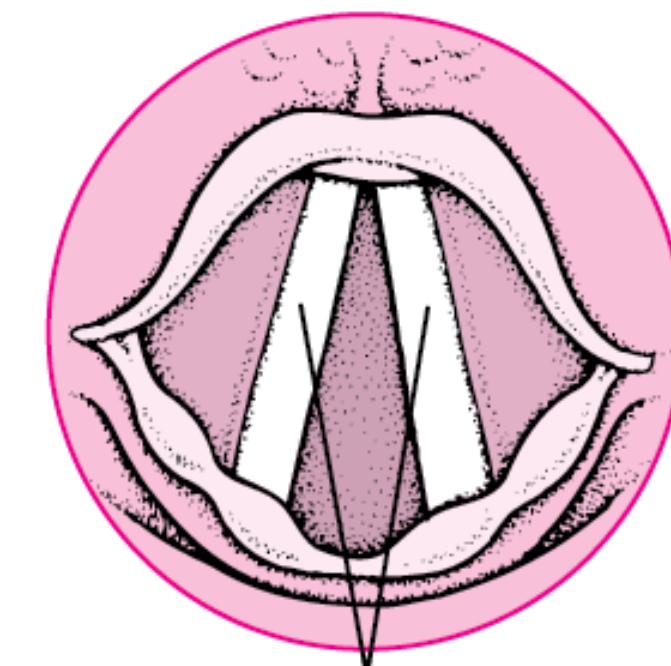
Introduction

- Endotracheal intubation is an airway management procedure.
- It may cause some rare complications like **aphonia**, with an incidence of less than 0.1%.
- Vocal fold Paralysis may be caused by an injury.
- Sore throat & hoarseness are the most common symptoms post intubation.

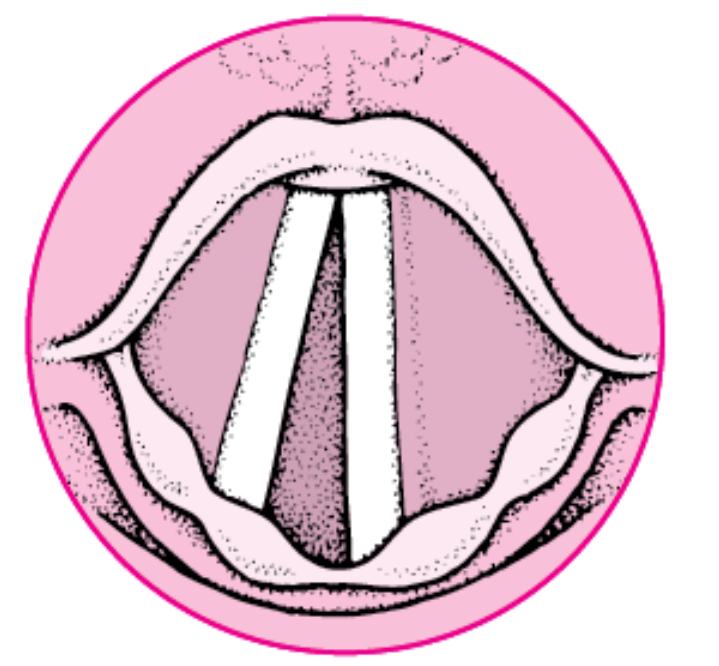


AIM

Clinically profiling a patient who had developed aphonia post-surgery.



Normal vocal cords



One-sided paralysis

Case Report

Brief history

- 67 year- old male
- Loss of voice since 10 days after Nephrectomy
- S/O large enhancing endophytic mass with central non enhancing component.
- Findings- right grade 3 varicocele present.
- Adequate water intake

Medical history

- K/C/O HTN since 6 months and under medication for the same.
- K/C/O right RCC with IVC thrombosis extending into right atrium

ENT findings

Right Vocal Cord palsy.
Left phonatory gap present of 3-4 mm restricted mobility.

Speech subsystems

Respiration –

- Breathing pattern- thoracic.
- Maximum phonation time (MPT) and S/Z ratio could not be calculated due to lack of voice.

Voice Evaluation

- Pitch- low
- Quality – strained breathy voice
- Loudness- reduced
- GRBAS – severe breathy voice
- Acoustic evaluation- see Table

Provisional Diagnosis :- Severe breathy voice Secondary to Right vocal cord palsy, and restricted mobility of left vocal fold.

METHOD

- ✓ The patient was given 13 sessions of voice therapy, for 2 weeks
- ✓ Home therapy sessions, which expand up to 3 months
- ✓ **Vocal folds exercises (VFE)** were implemented in the sessions
- ✓ Patient was instructed to perform VFE at home along with Vocal hygiene program

RESULTS

	Pre-Therapy	Post-Therapy
Fo	453.96Hz	152.49Hz
Intensity	67.90dB	58.47dB
HNR	0.92dB	7.92dB
CPP	14.30dB	16.38dB

- ✓ Noticeable improvement was seen in the patient throughout the sessions, which transformed the patient's voice from aphonia to a normal voice that the patient had pre-surgery
- ✓ Post-therapy perceptual and instrumental voice analysis results indicated clinically near normal voice

DISCUSSION

- Uniqueness of this case was that vocal fold exercises (VFE) were efficient in rehabilitating the patient with Aphonia.
- VFE is an effective technique to deal with hyper-functional voice disorder.

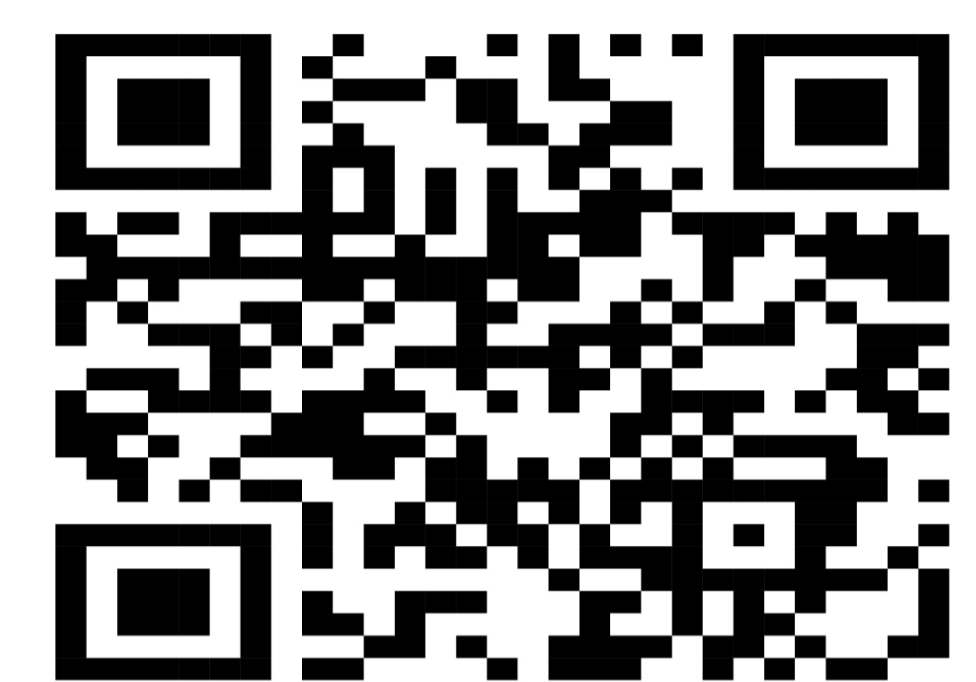
Patient risk factors

- Age
- Co- morbid conditions
- Anaesthetic considerations such as size of endotracheal tube
- Number of attempts
- Mean cuff pressure
- Anesthetic agents used, nature and duration of surgery

CONCLUSION

It can be concluded that the **early identification** and **intervention** plays a crucial role in such exceptional scenarios in bringing back normalcy in voice in affected individuals.

REFERENCES



ACKNOWLEDGEMENT

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