

Laryngology Quiz

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A 58 yr old male, non smoker presented with hoarseness of 4 weeks duration.
(Clue: Vocal cords were mobile and mucosal waves were absent).

1. What procedure is being done and what further test would you like to carry out?
2. What is the differential diagnosis?
3. What is the final diagnosis?
4. How do you treat this condition?

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Laryngology Quiz - Answers

1. Videolaryngoscopy is being done with 70 degree rod lens endoscope and the finding is a smooth sub-mucosal swelling of the mid part of right vocal cord.

- A stroboscopy should be done to assess the mucosal waves. In this, a bright xenon light is flashed repetitively and the images of vocal cords in different positions are captured. When the phase of the flashed light and rate of cord vibration match, the cords appear stand still and when it is slightly out of phase, obtained view will be of slow motion of vocal cord vibration.
- Mucosal waves vary in different conditions.

Vocal nodules: These are always bilateral and located at the junction of the anterior and middle third of the vocal cord. These are small, white, firm, sessile masses. Rest of the vocal cords is normal. Mucosal waves are altered but present. Cord movements are normal.

Reinke's oedema: This is due to polypoid degeneration of the vocal cord. Both vocal cords are diffusely swollen and related to smoking, laryngopharyngeal reflux and hypothyroidism. Vocal cord movements are normal. Mucosal waves are reduced but present.

2. Differential diagnosis

Vocal cord cyst: These can be mucous retention cysts and squamous cell inclusion cysts. Mucous retention cysts arise below the free margin of the vocal cords. These are translucent. Squamous cell inclusion cysts appear as fusiform mass within the vocal cord. Rest of the vocal cords is normal. Mucosal waves are absent in the area of the cyst. Cord movements are normal.

Vocal polyp: These are usually unilateral and are pedunculated or sessile involving the epithelium. These are translucent to red. Rest of the vocal cords is normal. Mucosal waves on stroboscopy is generally present or even increased.

Vocal cord movements are normal.

3. Final diagnosis

Vocal cord cyst - Squamous cell inclusion type.

4. Treatment

- Surgery is the mainstay.
- First line of treatment is speech therapy and behavioral intervention. Goal will be to maximise the efficiency of phonation and to eliminate the maladaptive vocal behaviors that exacerbate these masses. Vocal cord polyps and cysts are less responsive to voice therapy as compared to vocal nodules.
- Additionally, laryngopharyngeal reflux and vocal hygiene needs to be attended to.
- Surgery - Microlaryngoscopic excision under GA.
- Mucosa is incised laterally and sub epithelial dissection is done using semi blunt micro dissectors at the wall of the cyst preserving the superficial lamina propria. The cyst is excised without rupture to avoid recurrence. Healthy mucosa is redraped over the defect. Tissue glue can be used.

Postoperative management

- Voice rest is advised for a week. Absolute rest is controversial and reduced voice use is preferred.
- Speech therapy is resumed after 4 weeks. Patients are advised to follow vocal hygiene forever.
- Follow up for any recurrence for 6 months.
- Post operative vocal function is measured by patient perception, quality of life, videostroboscopy, acoustic and aerodynamic measures of vocal cord functions.

References

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2. Ellen S. Deutsch, Jane Y. Yang, James S. Reilly. Laryngoscopy. In: James B, Snow Junior. Ballenger's Manual of Otolaryngology, Head and Neck Surgery. 2003. People's medical publishing house, Shelton, Connecticut.