

## Case Report On Benign Hyperplasia of the Anterior Commissure and Left Vocal Cord in a Patient With Type-2 Diabetes Mellitus

Ms. Rishita S. Mhaisagavali\*, Ms Switi Jawade\*\* Roshan Umate\*\*\* Vaishnavi Kantode\*\*\*\*

- 1) G.N.M 3rd year, student Florence Nightingale Training College Of Nursing, Sawangi (Meghe) Wardha, Data Meghe, Institute Of Medical Science [D.U], Sawangi [M], Wardha  
Email id:- [rishitamhaisagavali@gmail.com](mailto:rishitamhaisagavali@gmail.com)
- 2) Ms . Sweety Jawade\*\* Nursing Tutor, Florence Nightingale Training College Of Nursing Data Meghe Institute of medical science (D.U) Sawangi [M] , Wardha India  
Email id:- [vanshikalohave19@gmail.com](mailto:vanshikalohave19@gmail.com)
- 3) Research Scientist, Jawaharlal Nehru Medical College, Datta Meghe Institute of Medical Sciences, Sawangi, Wardha, Maharashtra.
- 4) Department of Medical-Surgical Nursing, Smt. Radhikabai Meghe Memorial College of Nursing, Datta Meghe Institute of Medical Sciences, Sawangi, Wardha, Maharashtra.

### ABSTRACT:

**Introduction** :A rise in the cell count of an organ or tissue called benign hyperplasia of the anterior commissure. Under a microscope, these cells seem healthy. They are not cancer, but they could develop into it. Cancerous cells can develop from normal cells. The body's tissues go through irregular cell changes called hyperplasia and dysplasia before the development of cancerous cells. Hyperplasia is an increase in the number of cells in an organ or tissue that look regular under a microscope. Under a microscope, the cells in dysplasia seem irregular but are not cancerous. Dysplasia and hyperplasia might or might not develop into cancer. There is no overt sex preference for this unusual lesion, which occurs seldom and most frequently on the actual vocal cord in adults in their third, fourth, and fifth decades.

**Patient history:** A patient with 42 yr male patient was admitted to a rural tertiary hospital in the E.N.T ward with the chief complaint of change in voice and breathlessness on exertion since eight months, insidious in onset, hoarseness and difficulty in imitating speech in the morning, chronic sore throat, sometimes with ear pain, weight loss, blood in the sputum.

**Diagnostic evaluation:** Physical examination and investigation of complete blood count, prostate specific antigen test, laryngoscopy, random blood sugar test, urine examination.

**Outcomes:** All necessary treatment was given to the patient, and now symptoms were disappeared, and the prognosis is good.

**Conclusion:** Due to conservative management and quality of nursing care patient's condition was stable and had no active complaints at present; hence the patient is being discharged.

**Keywords:** Hyperplasia, Hypertension, diabetes mellitus, Vocal cord

### Introduction:

The number of cancer specialists concurs that vocal cord cancer likely begins as small patches of aberrant cells (dysplasia) undergo a series of modifications before developing into cancer. Leukoplakia or erythroplakia are precancerous lesions that can take the form of the vocal cord's white or red plaque, which is generally thicker and more extensive than precancerous lesions. Any of these examination results point to the need for a biopsy or lesion excision in order. To rule out the presence of cancer. According to research, getting precancerous lesions treated may lower your cancer risk. An estimated 10,000 cases of vocal cord cancer are each year nationally. Vocal cord cancer is very closely linked with a smoking history, though nonsmokers may also get vocal cord cancer. Fortunately, many vocal chord cancers show early signs because the hoarseness caused by the lesion often prompts timely detection [1].

Squamous hyperplasia, mild dysplasia, moderate dysplasia, severe dysplasia, and other hyperplastic lesions were all categorized into groups of five using World Health Organization (WHO) standards. These premalignant lesions start to form on the vocal fold's vibratory mucosa and often resemble thickened white, grey, or reddish mucosa. They cause a loss

in voice quality and are more common in people who smoke, Utilize their voice improperly, or have reflux. Early diagnosis includes the possibility of surgical treatment to keep them under control before they develop into invasive carcinoma. The lesion can be located via indirect laryngoscopy, flexible endoscopy, and (V.L.S). the benefit of V.L.S. is that it can show how the vocal folds vibrate. Treatment for vocal fold hyperplastic lesions is most effective when the lesion is treated with the risk factors [2-3].

The endocrine system and the prostate are linked organs; testicular androgens regulate the mesenchyme and epithelium during the formation of the prostate, which combines to create a specialized secretory organ. Furthermore, many prostate disorders have a significant endocrine system component, and numerous medications for prostatic diseases target endocrine system modification. The gland, which forms the most proximal part of the urethra, is located in the true anatomical pelvis. The prostate gland is allegedly the male organ most commonly afflicted by benign and malignant neoplasms. Therefore, it is an organ that every doctor and surgeon needs to be familiar with. We will focus on BPH, the mild disease that affects the prostate most frequently[4].

#### **Patient information:**

**Specific Patient Information:** A patient 42 years old was admitted to a rural hospital with the chief complaint of change in voice and breathlessness on exertion for eight months, insidious in onset, hoarseness and difficulty in imitating speech in the Benign hyperplasia of anterior commissure a rise in an organ's or tissue's cell count, chronic sore throat, sometimes with ear pain, weight loss, coughing up of the blood.

**Medical Family and psychological history:** A case of Benign hyperplasia of the anterior commissure and left vocal cord was diagnosed by the general physical examination and investigation. The patient belonged to the middle class and joined the family, and he was not mentally stable, He was oriented to date, time, and place.

**Relevant past intervention and outcomes:** History of the patient with hypertension for eight months. He was hospitalized for that after investigation, and He took treatment for that, and his results were good.

#### **Clinical Findings:**

The state of health is unhealthy thin body build, and the height is 156 cm and weight 78kg, vital signs are typical, heart sound abnormal and breathing difficulty.

#### **Diagnostic assessment:**

Based on the patient history, physical examination, blood examination, X-ray, complete blood count done in that haemoglobin 8.2gm %, R.B.C count 5.7 million/cumm, W.B.C count 10400 million/ cumm, platelets count 1.22, monocytes 02, granulocytes 65, lymphocytes 30, prostate specific antigen test done, to measure the amount of prostate-specific antigen in blood, laryngoscopy was done to examine the vocal cord and larynx, random blood sugar test to check the sugar level, urine exam was done etc.

#### **Diagnostic Challenging:**

No diagnostic challenges during diagnostic evaluation.

**Prognosis:** case of the forecast was satisfied.

#### **Therapeutic Intervention and outcomes:**

The doctors provided medical management like antibiotics, nonsteroidal anti-inflammatory drugs, antacids, proteolytic enzymes, steroids and vitamin C. he took all the treatment, and the outcomes were good. His sign and symptoms were reduced, and he was able to do his activities.

#### **Discussion:**

A thorough evaluation of the patient found suspicion of malignancy, especially the more common type of cancer for this age range, rhabdomyosarcoma. Two authors reviewed the literature for cases of juvenile BPH and discussed the potential particular cases' etiologic factors, such as supplementing gonadotropin for undescended testes. There's no history of drug use, endocrinologic irregularities, or other potentially influential factors in our case. Due to the small number of cases, there is not enough way to know the origin of BPH in adolescents, and there is also no consensus on how to treat it. As a result, the paediatric treatment modalities are informed by lessons learned from adult cases. [4-14]

Vocal fold hyperplastic lesions, which show Precancerous lesions, include cytological atypicality and loss of cellular maturation. men and smokers are more likely to experience them. Similar to this, most of our patients were men who smoked. According to the literature, invasive carcinomas develop from hyperplastic lesions at almost 10%. In the current investigation, invasive carcinoma was found in 3 individuals (11.1%) and recurrence in 10 patients (37.0%). as a result, Frequently diligent followup is required, especially when there are recurrent lesions. It is no surprise that monitoring disease progression or recurrence allows for early cancer diagnosis, which effectively enhances cancer survival rates. [15-21] Due to this, when keeping an eye on patients with hyperplastic vocal fold lesions, It is advised

to use a flexible or rigid telescopic endoscopic examination to record objective laryngeal images since the results may always be compared to that of previous tests. Vocal fold hyperplastic lesions in patients commonly experience hoarseness or poor voice quality due to the existence of any non-vibrating vocal fold parts and the irregularity of the vocal fold free edge(s). The abnormality reduces vibration and hinders complete glottic closure during phonation. [22-25] After the lesion is removed, recreating is preferable to get a smooth re-epithelialization along the border of the vocal fold. We significantly reduced the free edge abnormalities postoperatively in the current investigation. A localized mass increase on the vocal fold is the leading cause of non-vibrating vocal fold regions in individuals with hyperplastic lesions. However, scarring at the surgical site may also cause non-vibrating portions to appear as a postoperative complication. Therefore, every precaution should be made to limit damage to the vocal ligament during excision. The presence of a non-vibratory scar and scarring part could result from any fibrosis that could otherwise grow in the area. Using the hydroids section technique, safe excision can be carried out to prevent this complication. [26,27]

### Conclusion:

Periodicity is one of the crucial factors affecting vocal performance. This refers to how consistently subsequent voice vibrational cycles occur. Regular and frequent vibratory activity is typical. Periodic vibration can be prevented by glottic lesions or lung diseases that limit the expected delivery of expiration air to the glottis. Hyperplastic lesions of the vocal folds may also change the frequency. Similar to this, our patients' vocal vibratory cycles were absent at the time of diagnosis, but following surgery, periodicity values showed a statistically significant rise, indicating that their successive vocal vibratory cycles had returned.

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