

Case Report

White papilloma involving both vocal cords: A Case Report

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Abstract:

White papilloma are rare lesions that may occur at any site of mucosa-lined respiratory tract especially in vocal cords. Morphologically it appears villas looking, clinically & microscopically benign in most cases. We report a 70 years old male patient with white papilloma near anterior commissure involving both vocal cords found during indirect laryngoscopy. The lesion was completely resected with a unipolar coagulation device under direct laryngoscopy. Histopathological examination showed papilloma of vocal cords associated with Human papilloma virus(HPV) wart. To our knowledge this is the second reported case concomitant white papilloma with concomitant HPV in the vocal cords.

Key words: White papilloma, Vocal Cord, Direct laryngoscopy.

Introduction:

Papillomas are common benign tumors of the larynx and pharynx, and have been associated with viral infections. Recurrent white papilloma associated with HPV wart are rare lesions at any mucosa-lined location within the vocal cord.^{1,2} White papilloma have been reported to account for approximately 4.3%-6% of all benign

laryngeal lesions. Papilloma can also invade any site of aero-digestive tract and have been associated with viral infection. Although papilloma are benign, they may recur easily. Patient was commonly found with voice change and difficulty in breathing with dyspnea because of airway obstruction and indicated for tracheotomy. Expansion and increase in size of papilloma growth tends to increase morbidity. Considering from this point early diagnosis is very important and need to take some measure for avoid tracheotomy in such patient. Management papilloma remains a problem because of its frequent relapses. Relapses and dissection of the pathology sometimes life threatening. The purpose of this paper is to report a case of white papilloma of vocal cords. This report describes a 70 years old patient with white papilloma involving anterior commissure of both vocal cords, incidentally found during indirect laryngoscopy. Later on documented by FOL (fiber optic laryngoscopy) followed

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by intraoperative identification and resection of papilloma. It was then confirmed by histopathological examination.

Case report:

A 70-year-old man presented with the complaints of change of voice and sore throat for last 6 months. He was relatively healthy and had no other significant medical history. Oropharyngeal examination revealed normal. Other ENT examinations was unremarkable including neck palpation. He had no history of dyspnea, dysphagia, odynophagia or any foreign body feeling.

Then he was evaluated by I/L (indirect laryngoscopy) and Fiber optic laryngoscopy (FOL) which revealed a whitish mass near to anterior commissure involving both vocal cords (Fig.1).

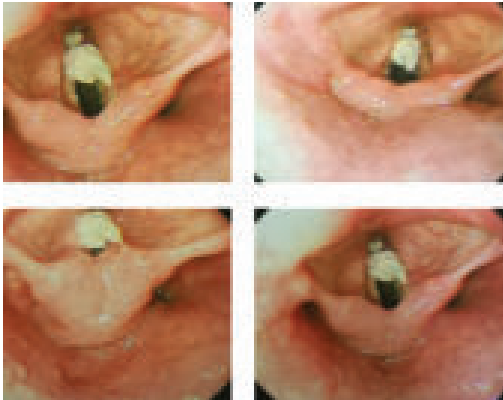


Fig.-1: FOL Images of Larynx

After proper counselling, the patient was prepared for direct laryngoscopy (D/L) and excision. All relevant investigations were done and found within normal limit.

Then the patient underwent direct laryngoscopic examination with excision of mass under general anesthesia. This mass had the appearance of a papilloma measuring about 1x1 cm (Fig. 2) involving both vocal cords near to the anterior commissure. The surgical procedure proceeded uneventfully with no intraoperative or immediate post-operative complications. There was no strenuous coughing or difficulty in breathing after extubation.

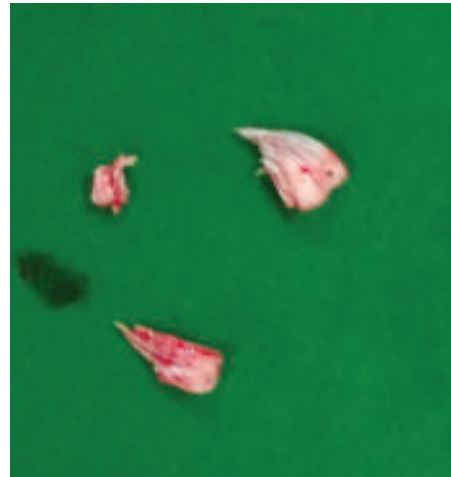


Fig.-2: Excised tissue from both vocal cords

HPR (Histopathological Report) revealed vocal cord papilloma (Fig. 3 & 4) associated with HPV (Human Papilloma Virus).



Fig. 3: Histopathological pictures

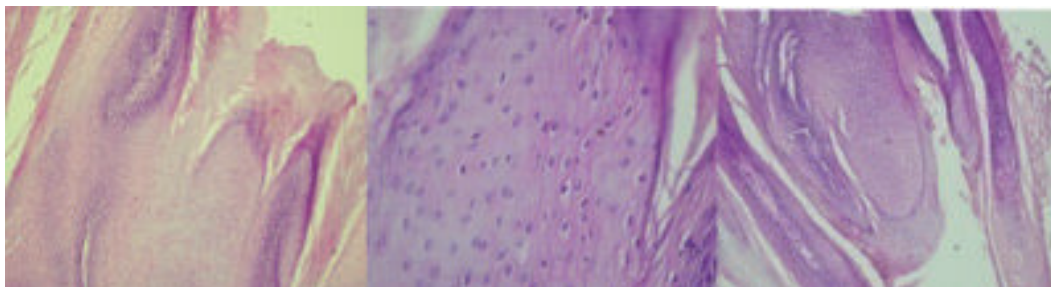


Fig. 4: *Histopathological pictures*

Discussion:

Laryngeal papillomatosis was first described in the medical literature approximately 150 years ago. Since then numerous studies have investigated the epidemiology of the disease and the viral etiology, pathophysiology, clinical presentation, risk factors for aggressive disease, and staging of juvenile laryngeal papillomatosis^{1,2}. Before the advent of laryngoscopy and modern medical and surgical techniques, it is probable that many patients with laryngeal papillomatosis died for their disease without diagnosis. Even there was history of laryngectomy in a child.

Tumors can grow along the respiratory tract and mouth (aero-digestive tract) and predilection the most common in the larynx 97.9%-100%.^{3,4} The growth of papilloma of the nose are often in the histopathologic form of inverted papilloma 47%, fungiformis papilloma 50% and the cylindrical papilloma 3%.^{6,7}

One of the factors causing papillomas is due to a viral infection. Any signs of HPV infection are found in both patients in the form of koilosis cells, so that convince suspicion is the virus as the etiological factor of disease.⁹ This can cause by transmission from mother during delivery 60%.⁵ But the gynecological examination from the mother of the patient may not found signs of condyloma. This possibility can occur

because the patient's mother may have recovered from her illness at the time when examination performed (some time later after giving birth).

At first, papilloma is often confused with suspicion of allergic disease, asthma or croup patients referred with the airway inflammation. But the thoracic X-ray showed no abnormalities. Finally, the direct laryngoscope showed multiple masses in the pharynx and larynx, suggest papillomas.

In case of children papilloma may show remission with increasing age.⁷ Microlaryngeal surgery (MLS) was performed to excise the tumor by preserving the normal mucosa. Therefore, it is needed to evaluate the subglottic and trachea due to the extension of laryngeal papilloma.

In this case, papilloma located only over two vocal cords near to the anterior commissure, nowhere else in the aero-digestive tract.

Conclusion:

The natural history of vocal cord papillomatosis is highly variable and unpredictable. Though benign in nature, a white papilloma may be life-threatening when presents with airway obstruction. Tracheostomy should be avoided if patients attend clinic earlier and early diagnosis is established. Surgical excision is the main mode of treatment when airway is compromised. Sometimes the disease may

undergo spontaneous remission, persist in a stable state requiring only periodic follow-up. A meticulous follow-up is recommended for early recognition of local and regional recurrences and malignant transformation.

Conflicts of Interest:

The authors declare that they have no conflicts of interest.

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