

Vocal Cord Paralysis in 100 Hoarse Patients Examined Through Flexible Fiberoptic Nasopharyngoscope/ Laryngoscope

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ABSTRACT

Aim: To evaluate the role of flexible fiberoptic nasopharyngoscope /laryngoscope in diagnosis of vocal cords paralysis to help in proper management of the patients .

Study Design: This study is a retrospective case series in which 100 outpatients who presented with HOV were reviewed.

Setting: ENT Unit-1 Mayo Hospital, King Edward Medical University (KEMU), Lahore

Period: From Sep 2012 to March 2013.

Methods: Patients were admitted through ENT outpatient department. The data was collected on the basis of history, physical examination, investigations, flexible fiberoptic nasopharyngoscopy/ Laryngoscopy findings, management and follow up was done through standard questionnaire.

Result: 100 patients suffering from Laryngeal pathologies who presented with HOV were 70 (70%) male and 30(30%) female between 10 to 80 years of age. The highest incidence was seen in males (70%). 10% patients diagnosed with vocal cords paralysis. Male to Female ratio was equal 1:1. Average age of the patients diagnosed with vocal cord paralysis (VCP) was 43.3 years. Among those diagnosed with VCP, Six patients were suffering from left vocal cord, three from right vocal cord and one from bilateral vocal cords paralysis. Overall 90% (n=10) were suffering from Unilateral vocal cord paralysis (UVCP) and 10(10%) from Bilateral vocal cord paralysis (BVCP). Four patients with suspected TB were referred to Pulmonology Department for further investigations. D/L biopsy done in two patients. Urgent tracheostomy done in one patient diagnosed with BVCP.

Conclusion: Flexible fiberoptic nasopharyngoscopy /Laryngoscopy is a safe, noninvasive and best procedure for diagnosis of vocal cord paralysis , nasal, pharyngeal and other laryngeal pathologies. Hoarseness of voice (HOV) is a significant presenting complaint of vocal cord paralysis and should not be ignored if proceed beyond 3 weeks, which was not responding to conventional treatment.

Keywords: Hoarseness of voice (HOV), Vocal cord paralysis (VCP), Unilateral vocal cord paralysis

INTRODUCTION

Although Garcia got the credit for first description of mirror indirect laryngoscopy. It was Bozzini actually who firstly reported on mirror visualization of the larynx and described the first indirect laryngoscope. Killain in 1909 introduced the suspension laryngoscopy and in 1960 Kleinsasser developed monocular telescope and discovered the great possibilities of this magnification in early diagnosis of pathological changes. Late in the same year Scalo described the use of Zeiss operating microscope with the suspension laryngoscopy. Hopkin rods have greatly enhanced the magnification and depth for detailed observation during examination of the larynx; also they were modified to view in different angles. Hopkin rod telescope and flexible endoscope limited the use of direct laryngoscopy for therapeutic intentions. Laryngeal disorders often have multiple factors involved in etiology and to complicate matters

patients may develop compensatory vocal behaviors in order to be able to communicate effectively. This may mask the true underlying or primary disorder. There are 4 main causes of voice disorders which are inflammatory, structural or neoplastic, neuromuscular and muscle tension imbalance. Visual inspection of the larynx is mandatory for diagnosis or exclusion of laryngeal disease.

A thorough and detailed laryngeal examination is the key in evaluation when patients present with voice changes such as hoarseness, vocal fatigue etc. Advances in technology and improved understanding of vocal fold physiology and sound production have resulted in a remarkable improvement in the ability to visualize the interior of the larynx. Indirect laryngoscopy has been used by otolaryngologist for years however this method of examination is limited in comparison to newer methods like FOL. A time limitation caused by large base of tongue, soft palate, over hanging epiglottis and exaggerated gag response limited this examination from being performed in 5-10% of patients. Flexible fibro-optic nasopharyngo laryngoscopy offers an extremely clear

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and magnified view of the nose , nasopharynx and larynx.

Vocal cord paralysis (VCP) is a relatively common entity which usually results from a disease process of the vagus nerve or its recurrent laryngeal nerve branch. The cause may be in thorax, neck or cranial cavity. The left recurrent laryngeal nerve branch is more frequently involved, because the longer course of the nerve creates additional vulnerability especially within the mediastinum. The main presenting symptom in UVCP is hoarseness of voice, the degree of which depends on the position of paralyzed vocal cord. Other associated symptoms include weak voice, cough, aspiration and swallowing symptoms. In patients of BVCP most common complaint is breathing difficulty followed by dysphonia and aspiration.

MATERIAL AND METHODS

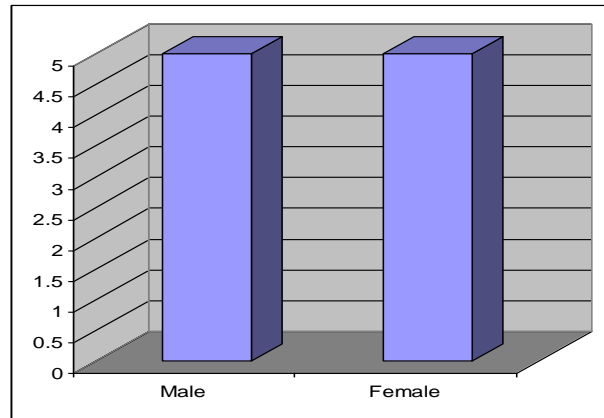
It was a retrospective study conducted upon 100 patients suffering from laryngeal pathologies mostly presented with hoarseness of voice in the Department of ENT, Mayo Hospital, King Edward Medical University, Lahore from Sep 2012 to March 2013. The detailed history, clinical examination, routine investigations and special investigations were carried out to find the etiology of VCP and manage accordingly. Standard Performa was prepared duly filled for each patient. All the patients of hoarseness of voice in the study were selected randomly. The data was compiled and conclusions were made. Patients diagnosed with VCP were subjected to further investigations to find etiology of the disease. All the patients were advised with HBsAg and Anti-HCV before procedure. I/V line maintained and 10% lignocaine spray applied to all patients.

RESULTS

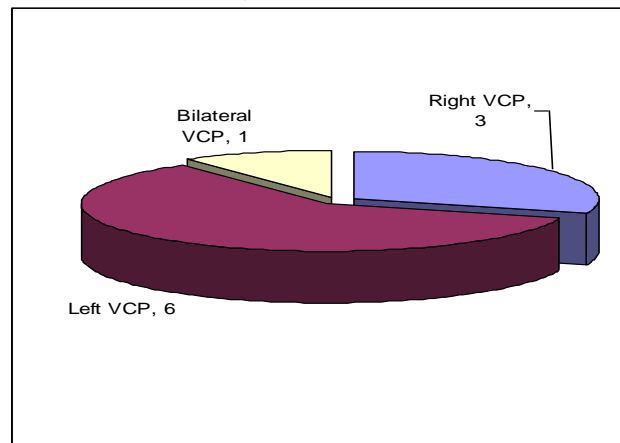
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done in patient diagnosed with BVCP. Two patients diagnosed with carcinoma, larynx and esophagus each.

Graph 1: Prevalence among Genders



Graph 2: Side of paralysis



Graph 3: Correlation with smoking

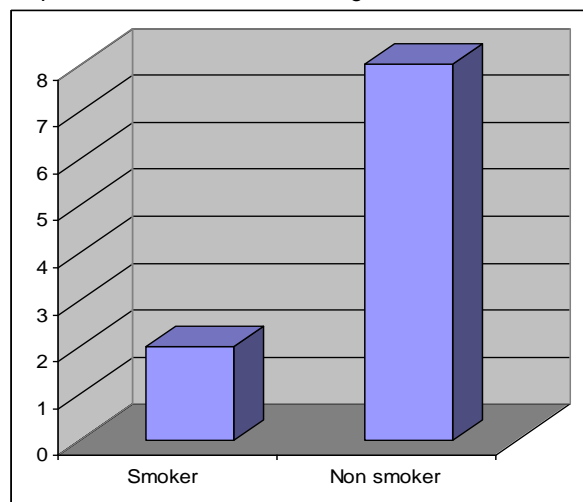
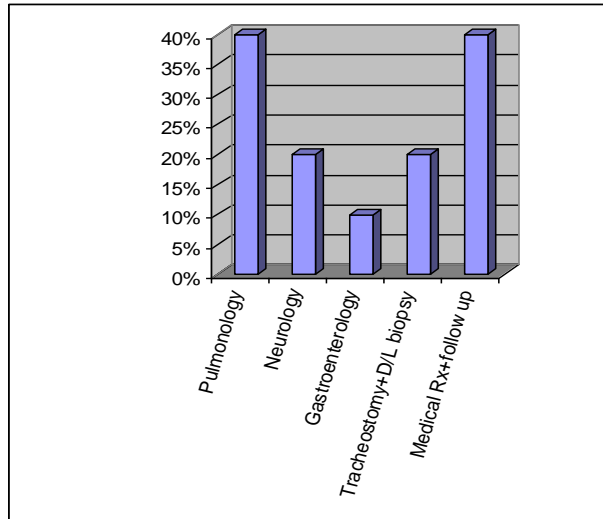


Fig. 4: Management of the patients diagnosed with VCP



CONCLUSION

Hoarseness of voice (HOV) is significant presenting complaint of vocal cord paralysis (VCP) and should not be ignored if proceed beyond 3 weeks, not responding to conventional treatment and should not be ignored if proceed beyond 3 weeks, not responding to conventional treatment. Flexible fiberoptic nasopharyngoscopy /Laryngoscopy is safe, noninvasive and best procedure for diagnosis of vocal cord paralysis, nasal, pharyngeal and other laryngeal pathologies. We performed 100 cases with excellent diagnostic accuracy without leading to any serious complication. Flexible fiberoptic nasopharyngoscopy /Laryngoscopy should be adopted in all out patient departments of tertiary care hospitals to increase diagnostic yield and decrease “idiopathic paralysis” for proper management of patients with laryngeal pathologies. Flexible nasopharyngolaryngoscopy is a very effective diagnostic tool in patients with upper airway symptoms. It takes less than 5 minutes, patient and surgeon can see the condition of nose, nasopharynx and larynx. The procedure offers flexibility in use and can be accomplished under local anesthesia in OPD setting.

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