

Case Report

A Case of Verrucous Carcinoma of Larynx

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Abstract

A 50 years old male patient was admitted with complaints of change in voice for 2 years, dry cough 2 month and difficulty in breathing for 1 month. On examination with fiberoptic laryngoscope, an exophytic lesion covered with whitish plaque involving right vocal cord extending from anterior commissure to right arytenoid region, extending upto the right vestibular area and hanging in the subglottic area was seen. Patient was treated with Microlaryngeal Laser excision and the Histopathology report was suggestive of Verrucous Carcinoma of Larynx.

Introduction

Histologically, Squamous Cell Carcinoma (SCC) may be classified into the following categories: keratinizing, nonkeratinizing, spindle cell, adenoid squamous, and verrucous carcinoma¹. First described by Ackerman in 1948, verrucous carcinoma presents as a slowly growing exophytic or warty neoplasm in the oral cavity². It is a well-differentiated variant of squamous cell carcinoma and has the histologic appearance of keratinized epithelium arranged in long, papillomatous folds. Like the nonkeratinizing

subtype, verrucous carcinoma has “pushing” margins. It typically affects the buccal mucosa of elderly patients with a history of tobacco exposure or poor oral hygiene. True verrucous carcinoma has an astoundingly low metastatic potential. As a result, wide surgical excision is the recommended treatment, although irradiation may be considered in selected patients. Verrucous carcinoma, an exophytic, highly differentiated variant of squamous cell carcinoma, constitutes 1 to 3% of all laryngeal carcinomas. It rarely metastasizes, and surgical resection is the treatment of choice.

Case Report

A 50 years old male patient was admitted in August 2017 with complaints of change in voice (2 years), dry cough (2 month) and difficulty in breathing (1 months). He is a known case of Ischaemic Heart Disease, There was no history suggestive of antitubercular treatment in past, chest pain, haemoptysis and difficulty in swallowing. Patient was a chronic smoker (30 years). Clinical examination revealed an exophytic, bulky growth on the right vocal cord, with normal mobility, the left vocal cord was normal and mobile. Rest of the ENT examination was normal. There was no palpable neck node. Chest was normal.

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A flexible fiberoptic laryngoscopy was done; which showed an exophytic lesion covered with whitish plaque involving right vocal cord extending from anterior commissure to right arytenoid region, extending upto the right vestibular area and hanging in the subglottic area. Right & left vocal cord mobility were normal. Haematological, biochemical, radiological (Xray chest PA) investigations were normal.

Patient was treated surgically under general anaesthesia by Microlaryngeal Laser Excision. The Lesion along with the right vocal cord was excised. Left vocal cords, anterior commissure, bilateral arytenoids were found free from any pathology. Subglottic mucosa was normal. Right false cord was preserved as it was not involved. Post operative period was uneventful. Patient was discharged on 3rd post operative day, Patient has a reasonable functional voice, with no recurrence after 1 month of follow up.

Histopathological examination of excised irregular grey white piece of tissue measuring (0.2 x 1.5 x 0.5) cm showed malignant tumour with verrucous proliferation of squamous epithelium pushing the subepithelial tissue with broad base. The tumour cells show minimal atypia. Mitoses are noted in the lower third of epithelium. The subepithelial tissue at the base of the tumour shows dense infiltration of lymphocytes. In Conclusion the features are suggestive of Verrucous Carcinoma.

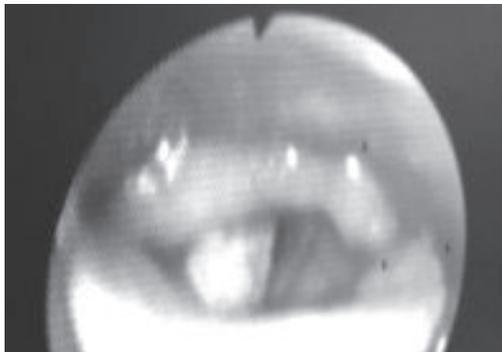


Fig.-1:

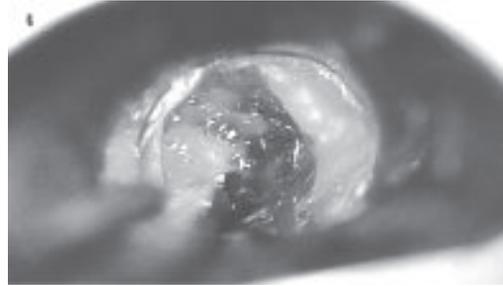


Fig.-2:



Fig.-3:

Discussion

Verrucous squamous cell carcinoma (verrucous carcinoma, Ackerman's tumor) is a malignant neoplasm usually defined as verrucoid, highly differentiated, squamous cell carcinoma of mucosal or skin surface. It tends to produce prominent surface keratin, and even though capable of local tissue destruction and invasion, does not usually metastasize. Clinical and histological differentiation from conventional squamous cell carcinoma is of prime importance in diagnosis. Verrucous squamous cell carcinoma occurs most often in the oral cavity, but the next most common area of involvement is the larynx (0.7% - 1.0% of laryngeal carcinomas), but similar lesions have also been described on the genitalia, in the nasal passages, and in the

oesophagus. Age may range from the fourth to eight decades, with a mean age of 60 years. Four out of five patients are male. Demographics are similar to other types of squamous cell carcinoma. Etiology and

symptomatology is same as laryngeal squamous cell carcinoma. Typical lesion is a pale, warty, fungating, locally aggressive, ulcerated tumor attached by a broad base, is well circumscribed and it is clearly demarcated from the adjacent mucosa. Metastasis is rare, but growth is inexorable if untreated and the tumor can result in the patient's death. Ninety percent of laryngeal involvement is in the glottis. Pathological diagnosis can be very difficult, especially if the biopsy material provided to the pathologist does not show an area of junction between tumor and normal tissue.

Microscopically, verrucous carcinoma tends to be broadly based with an irregular surface sometimes thrown up into papillary fronds. The surface is usually heavily keratinised. The presence of keratin on an irregular moist mucosal surface gives the lesion its white, warty clinical appearance. In the typical lesion the deeper portions are locally invasive and destructive, with the infiltrative margin composed of blunt, well demarcated, well differentiated squamous cells. Typically, there is an associated mononuclear inflammatory reaction in the stroma immediately adjacent to the advancing margin. The inflammatory cells are usually plasma cells and lymphocytes; but giant cell reaction to extruded keratin is also commonly encountered. Probably in no other neoplasm of the larynx is there more need for co-operation between surgeon and pathologist than in the diagnosis of verrucous squamous cell carcinoma.

The lesion is difficult to differentiate either clinically or histiologically from well differentiated squamous cell carcinoma, except for identification of dysplastic epithelium and infiltration of irregular cords of dysplastic squamous cells into adjacent stroma rather than the broad, pushing bands of uniform squamous cells of verrucous

squamous cell carcinoma, should help clear the difficulty, when biopsy is done the pathologist usually uses the words such as "hyperplasia" and "hyperkeratosis", but is reluctant to use the word carcinoma. These lesions should be quantified by CT examination if any significant infiltration is suspected. Treatment of choice for laryngeal squamous cell carcinoma appears to be surgical removal. One must remember that in this non-metastasizing neoplasm, incomplete excision is not necessarily disastrous. Although this may lead to later recurrence, it is not life threatening, and perhaps more radical approaches may then be selected. There are those who advocate radiation therapy alone, but others have reported anaplastic transformation after radiotherapy. Certainly the well differentiated keratin surfaced verrucous squamous cell carcinomas would not seem very susceptible to cure by radiation. Only 50 percent of verrucous carcinoma respond primarily to radiation even when small. Properly performed surgery (partial/subtotal/ total Laryngectomy) has a very high cure rate. Batsaka & Associates cite Felito and Retcher, who surveyed the literature and in collected series they found 90 patients treated with radiation, of those treated, 71 percent had lesions that persisted or returned. In contrast, of 103 treated surgically, seven (6.8 percent) returned. Fortunately most verrucous cancers can be diagnosed early enough for a conservation operation. The follow up of verrucous carcinoma is particularly deceptive, and critical radiologic imaging should be employed as indicated. The prognosis of verrucous squamous cell carcinoma is excellent.

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