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Case Report

Facial Cellulitis - Howbeit, Look Below the Neck!

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Abstract

Superior Vena Cava (SVC) syndrome is an uncommon medical emergency that is commonly missed. The most common cause being secondary to malignancy, less frequent causes like intrinsic obstruction of SVC due to thrombus are on the rise, owing to an increase in the use of pacemakers, chemo ports and central venous catheters.

Classically presenting with facial, neck and upper limb edema, papilledema, non- pulsatile JVP, rare manifestations such as facial cellulitis can also occur.

We report a case of a 37 year old male non-smoker with no past significant medical history, presenting with facial cellulitis and eventually diagnosed to be having SVC syndrome due to lung malignancy.

Keywords: SVC (Superior Vena Cava) Syndrome; Facial Cellulitis; Lung Malignancy

Introduction

SVC syndrome, an oncology emergency, occurring either due to external compression or thrombus or tumor invasion of SVC, most common is secondary to adenocarcinoma of lungs [1,4].

However, the syndrome was initially described to be secondary to infections such as Tuberculosis, syphilitic aortic aneurysm [2,3,5,6]. It usually has a gradual onset of symptoms, leading to edema of upper extremities and face. However it can present with acute onset in thrombotic causes. Usually the diagnosis being a clinical one, features include cough, dyspnea, dysphagia, swelling and discoloration of face, neck and upper extremities often with collateral venous circulation leading to distention of superficial veins of the chest wall [3,5]. However uncommon presentations such as facial cellulitis [4] may be seen, which requires high degree of suspicion to recognize as SVC syndrome.

As it is a medical emergency, early identification and treatment is necessary.

Case Report

A 37 year old male, non- smoker with no known morbidities, presented to Otorhinolaryngology outpatient department with complaints of right sided facial swelling and fever since 4 days with minimal pain. The patient was treated for similar complaints elsewhere, the details of which were not available. On examination, vitals were within normal limits and facial examination revealed edema and redness with an increased temperature over the right side of the cheek and submandibular area. Oral cavity and throat examination was normal. USG suggested cellulitis of pre-maxillary area, with investigations revealing elevated ESR of 95mm/hr. He was admitted under Otorhinolaryngology department for

IV antibiotics. Later physician opinion was sought for persistent fever, where detailed examination revealed non pulsatile, tortuous veins on neck, chest and abdomen having above downwards flow and chest examination revealed stony dullness and absent breath sounds suggestive of right sided pleural effusion and clinical diagnosis of SVC syndrome was made. Patient was transferred to medicine department for further management.

CECT thorax was done, which suggested large heterogeneous neoplasm in right hilum with mass locally infiltrating right pulmonary artery, severe narrowing of right main bronchus with pericardial and myocardial infiltration. Right lung showed severe post obstructive collapse- consolidation with enlarged mediastinal and supraclavicular lymphnodes.

Oncosurgeon opinion was taken and advised to refer the patient to higher center for further management.

Discussion

SVC is a large valve less venous channel, draining the upper part of the body, formed by brachiocephalic and azygous veins. With gradual obstruction of SVC, there is formation of collaterals, hence having minimal or no symptoms. However lack of collaterals in acute cases like SVC thrombus, the presentation maybe life threatening. In our case the patient was asymptomatic initially, probably due to the presence of collaterals.

In 1757, William Hunter described the first case of SCV syndrome in a patient with large syphilitic aortic aneurysm [2]. In regions having high burden of TB, TB-lymphadenitis should also be considered as a cause of SVC syndrome [3].

Since the initial description of SVC syndrome, its pathogenesis has shifted from primarily non-malignant causes, such as syphilitic aortic aneurysm, granulomatous infections to predominately malignant tumors, which now account for over 90% of cases and a few iatrogenic causes such as chemo-ports and central line related.

Common presentation of this syndrome include, edema of face, neck and upper limb associated with flushing, cough, wheeze, dyspnea and distention of veins of chest wall with above downwards flow (as seen in our patient). Few cases of SVC initially presenting as facial cellulitis have been reported [5].

Though SVC syndrome is a clinical diagnosis, imaging modalities are required for diagnosis and treatment depends on the cause.

Treatment for cancer related SVC syndrome includes chemotherapy and radiation, sometimes requiring anticoagulation and fibrinolysis. Rarely endovascular therapy- including dilatation and stenting might be required [6].

Conclusion

A simple diagnosis of facial cellulitis can be masking as an SVC syndrome like the young patient in this case. Despite being a non-smoker with no prior health issues, a diagnosis of lung malignancy was made. Hence clinicians must have a high degree of suspicion even in a young patient to diagnose life threatening condition of SVC syndrome.

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