Introduction

Testicular cancer is the most common cancer in men between the ages of 20 and 35 years of age. On rare occasion, testicular cancer may present initially as cervical metastases. To review the key factors and pitfalls in diagnosis, we report two cases of male patients with testicular cancer who presented to us with the isolated chief complaint of left neck mass.

Methods

A retrospective review of two cases of testicular cancer presenting as isolated neck masses was performed. A literature review was then conducted on Pub Med and Ovid.

Case 1

A 50 year old white male presented with a two month history of an isolated enlarging left neck mass. CT of the neck with contrast revealed a 5.7x3.2 cm left supraclavicular mass with central necrosis. A CT-guided biopsy was obtained with pathology indicative of a poorly differentiated carcinoma. A PET/CT revealed uptake isolated to the left neck mass. A CT with fine cuts of the thorax was negative. Panendoscopy with biopsy and left neck dissection were performed. Pathology was consistent with a metastatic germ cell tumor. An US of the scrotum revealed a 5x5mm mass within the right testicle. Right orchiectomy was performed with seminoma present on final pathology. The patient was referred to heme/onc for chemotherapy and is currently in treatment.

Case 2

A 43 year old white male presented with a two month history of an enlarging left neck mass, dysphonia and dysphagia. An FNA was obtained consistent with a nonkeratinizing SCCA. A CT scan of the neck with contrast revealed a 9x8 cm left neck mass that compressed the trachea and extended into the thoracic inlet. On PET/CT there was increased uptake in the left neck and the left tonsil. Malignant nodes were present bilaterally in the neck, mediastinum, abdomen and retroperitoneum. A left TVC paralisis was noted on exam. The patient was scheduled for panendoscopy with biopsy, tonsillectomy and repeat FNA. Bilateral tonsils and biopsy specimen were negative for malignancy. FNA revealed a poorly differentiated carcinoma. The patient then underwent left modified radical neck dissection. Final pathology revealed a yolk sac tumor. An irregularity of the right testicle was noted on US of the scrotum and the patient subsequently underwent orchiectomy. Pathology revealed a burned out germ cell tumor. The patient was then referred for chemotherapy and is currently in treatment.

Results

Testicular cancer rarely may present initially as a neck mass. In the largest review available 0.005% (3/665) of patients with testicular cancer had cervical metastases as the first sign of disease. Within the neck, presence of testicular cancer is most common in left level IV. By definition presence of neck metastases indicates stage 3 disease for which chemotherapy is the mainstay of treatment. Rarely surgical neck dissection is required for diagnosis or for excision of residual neck disease following chemotherapy completion.

Discussion

The initial presentation of testicular cancer in the neck is rare. As demonstrated by our case series, FNA and PET scan may fail to assist in diagnosis. A low threshold of suspicion for testicular cancer in males may lead to earlier testicular ultrasound and collection of serum tumor markers. Notably, the most common site of testicular metastases is level IV of the left neck; this coincides with the position of the thoracic duct. Rarely testicular cancer may present in other neck sites secondary to hematogenous spread.

By definition, neck metastases in testicular cancer is Stage III disease, which requires aggressive chemotherapy. Timely diagnosis and initiation of therapy may lead to increased chance of cure.

Conclusion

In young and middle-aged men the differential diagnosis of an isolated neck mass should include metastatic testicular cancer. Common tools, including FNA and PET scan, may fail in detecting the correct diagnosis. A high level of suspicion, and use of non-invasive methods (scrotal US, serum tumor markers) may assist diagnosis in ambiguous cases, thus allowing for primary chemotherapy.

References


