
CASE REPORT

Cytologic Diagnosis of Metastatic Seminoma in Neck Nodes as Initial Presentation

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Abstract:

Background: Testicular germ cell tumors usually present as scrotal swelling. Very rarely the primary is occult. Germ cell tumor frequently affects the undescended testis. However germ cell tumor of inguinal testis presenting as metastatic disease in neck nodes is very rare. *Case history:* We report one such case. Metastatic seminoma was suspected in Fine Needle Aspiration Cytology (FNAC) smears of cervical lymph nodes which prompted us to reexamine the patient only to find an inguinal swelling. The cytologic study of the inguinal swelling matched the findings of that of neck nodes.

Conclusion: This case reinforces the need to include metastatic germ cell tumor in differential diagnosis of enlarged neck.

Key Words: Seminoma, FNAC, Tigroid background

Introduction:

Testicular tumors represent 1 to 1.5 % of male neoplasm and are common in age group of 15 to 34 year. Germ cell tumors account for 98% of all testicular malignancies. Incidence of metastasis to neck nodes has been reported to range from 4.5 to 15%. In 5% of these cases neck mass is the initial presenting feature [1, 2]. Germ cell tumors are divided into two broad

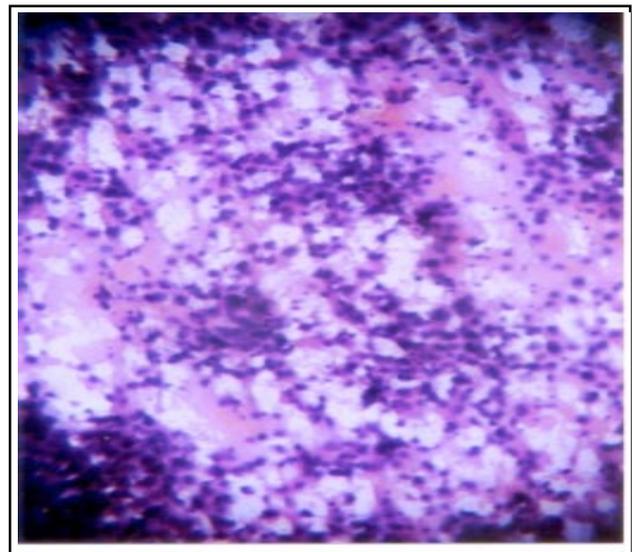
categories, seminomatous and nonseminomatous germ cell tumors (NSGCT) Seminomatous tumors are further divided into classic and spermatocytic.

Cytologic diagnosis of seminoma is based primarily on the tigroid appearance for which the fragile nature of seminoma cells is responsible and secondly on the presence of prominent nucleoli in the viable cells [3].

Case Report:

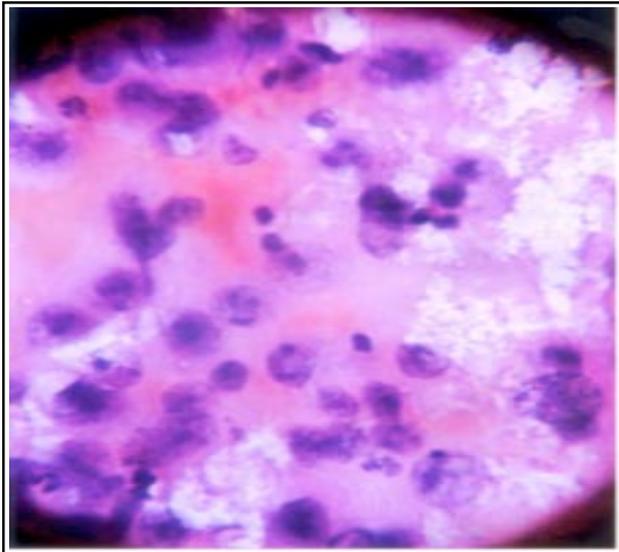
A 42 year old averagely built, asymptomatic, fertile male presented to us with left

Fig 1: Microphotograph- Low power (10 x) of H& E (hematoxylline and eosine) stained view showing seminomatous cells and lymphocytes on tigroid background



supraclavicular mass. The mass was diffuse, 5x4cm in size and was situated in left supraclavicular fossa extending to the lower cervical region. The smears showed large discohesive cells having pleomorphic vesicular nuclei and prominent nucleoli admixed with small lymphocytes on tigroid background. (Fig 1 & 2).

Fig 2: Microphotograph - high power (40x) of H&E view showing seminomatous cells and lymphocytes on tigroid background



Many smudged nuclei were also noted. Differential diagnoses of seminoma, amelanotic melanoma, adenocarcinoma, and lymphoma were considered. However in absence of acinar formations and the typical speckled chromatin pattern of lymphoid neoplasm the later two were ruled out. Absence of intranuclear inclusions, plasmacytoid features, significant nuclear atypia and mitotic activity did not favour the diagnosis of amelanotic melanoma. The presence of tigroid

background supported the diagnosis of seminoma. So, we went back to the patient and examined him, only to find an inguinal mass on left side measuring 5 x 4 cms with empty scrotum on the same side (inguinal testis). FNAC of inguinal mass showed similar cytology, which further confirmed our diagnosis of seminoma. For further treatment the patient was referred to oncology center.

Discussion:

Germ cell tumors account for 98% of all testicular malignancies. Cryptorchidism remains the best established risk factor for testicular germ cell tumor. In many series approximately 10% of cases are associated with corrected or uncorrected cryptorchidism. Because of the elevated risk, it has been suggested that cryptochid patient should undergo regular testicular biopsies so as to pick up the precursor lesion - Intratubular germ cell neoplasia (IGCN) which is present in 2 to 4 % of cases [4]. A cryptorchid testis is 30 to 50 times more likely to develop a malignant neoplasm than a normally placed organ. The incidence of malignancy is greater in the abdominal than in inguinal testis. The incidence is higher even after orchiopexy, if done after six years of age [5].

Once cervical nodes are involved, the tumor is stage 3 and initial treatment is generally chemotherapy. Testicular tumors have excellent cure rates. The main factors contributing to this are careful staging at the time of diagnosis; adequate early treatment based on chemotherapy alone or in combination with radiotherapy and or surgery, very strict follow-up and salvage

therapies. The serum markers are used as prognostic markers and also contribute to the diagnosis and staging.

Involvement of cervical nodes indicates advanced disease. Rarely the neck mass is the only manifestation, primary being either occult or neglected. The primary may regress after radiation therapy while spontaneous regression of primary is also on record [1, 2 & 6].

Hence while dealing with neck node metastasis in an adult male, the possibility of metastatic seminoma should be considered along with other differential diagnoses like metastatic carcinoma, lymphoma or amelanotic melanoma. Differential diagnosis like amelanotic melanoma, metastatic adenocarcinoma and lymphoma can be considered and ruled out on the basis of absence of diagnostic features of these diseases like nuclear atypia, mitoses, plasmacytoid features, gland formations and speckled nuclear chromatin. In our case it has been metastatic seminoma in the neck nodes with primary in undescended inguinal testis which has been neglected by the patient himself, probably because his fertility was not affected.

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