ABSTRACT
Metastatic malignancy is a more common etiology of peripheral lymphadenopathy than lymphoma, especially in patients over 40 years of age. FNAC has proved to be a valuable tool in diagnosing. These are diagnosed based on the presence of abnormal non-lymphoid cells among normal reactive lymphoid cells. Some of the malignancies have been reported in our department by FNAC of nodes (inguinal, cervical). Squamous cell carcinoma is the most common primary tumour metastasising to the lymph nodes. Cervical lymph nodes are the most commonly involved and the commonest primary site is head and neck. Here we report one case of elderly man with melanoma-anal canal; another man with carcinoma penis presenting with inguinal nodal metastasis and a case of elderly man with hypopharyngeal growth presenting with cervical node. The importance of presenting this article is mainly to highlight the fact that diagnosing malignancy in lymph node by FNAC helps in evaluating an unknown primary.

Key words:
FNAC, Lymph Node, Metastasis

Introduction:
Lymph nodes are common site of metastases for different cancers. Thus clinical recognition and urgent diagnosis of palpable lymphadenopathy is of paramount importance specially to differentiate between inflammatory lesions or metastatic or primary neoplastic tumor.

Although open biopsy with histological examination of excised tissue still remains the golden standard for diagnosis of lymph node tumors, yet FNAC (Fine needle aspiration cytology) has now become an integral part of gained wide acceptance since it offers a high degree of accuracy, lending itself to outpatient diagnosis and thus reducing the cost of hospitalization. The results of FNAC compare favourably with those of tissue biopsies and in some situations the aspirate has qualities of a micro biopsy. Suspicious or doubtful situations should be resolved by surgical biopsy and further by immunocytochemistry and molecular techniques whenever required. The aim of the present study is to highlight the role of FNAC in diagnosis of metastatic lesions of lymph nodes in a resource challenged environment like ours.

A stepwise approach to the investigation of nodal metastasis is suggested. This includes patient’s age and sex, anatomical site of the lymph node, tumor cytomorphology, cytochemical stains and immunoprofile. The cytological patterns seen in routinely stained smears often gives clues to the site of the primary tumour.

Case report:

Patient 1: Rajendran 40/M with the c/o dysphagia for two years and swelling in the right cervical region (lymph node) for the past two months. FNAC done in cervical node showed the picture in figure 1.

Fig. 1 showing the metastatic squamous cell carcinomatous deposits in the right cervical node.   LOW POWER VIEW:
Following which CT picture taken which showed supraglottic growth/hypopharyngeal growth with level II necrotic cervical nodes.

Patient 2: Venkatesh 60/M came with the c/o bleeding rectum for 3 months. o/e right inguinal node measuring 1*1.5 cm, firm, mobile and non-tender. Left inguinal region –free. FNAC done in the right inguinal node showed the picture in figure 2.

FIGURE 2: Metastatic carcinomatous deposits showing focal areas of melanin pigments in the node –s/o malignant melanoma.

Patient 3: Babu 60/M present with B/L inguinal lymph nodes. Right sided node measuring about 2*1.5 cm, firm, mobile and non-tender. Left sided node measuring 2*1 cm, firm, mobile and non-tender. FNAC done in right inguinal node showing metastatic squamous cell carcinomatous deposits.

FIGURE 3: Showing the metastatic carcinomatous deposits in the right inguinal node.

Later thorough clinical examination done and PATIENT found to have an ulcerated growth in the penis measuring about 4*2 cm

Discussion:
Enlarged lymph nodes are accessible for FNAC and are of importance specially to diagnose secondary or primary malignancies. It plays a significant role in developing countries like India, as it is a cheap procedure, simple to perform and has almost no complications. The diagnosis given on the cytological material is often the only diagnosis accepted and sometimes there is no further correlation with
histopathology, especially in cases of inoperable advanced malignancies. It also provides clues for occult primaries and sometimes also surprises the clinician who does not suspect a malignancy.

Enlarged lymph nodes are easily accessible for fine needle aspiration and hence fine needle aspiration cytology (FNAC) is a very simple, less time consuming, cost effective and important diagnostic tool for lymph node lesions.

Among the adult patients with isolated palpable lateral neck swelling, approximately 20% were diagnosed as malignancy in the lymph node, mostly metastasis from primary squamous cell carcinoma in the head and neck. In most cases, they presented as a firm and solid mass in the corresponding chain of the lymph node, the cytological diagnosis of which did not pose any problem. An important clue to the diagnosis of metastatic (supraglottic growth) SCC is the presence of necrosis and keratinization, which is better appreciated on Pap stain than on H & E stain. SCC can be easily confused with a cystic lesion or pilomatrixoma, especially when head and neck region is involved. This showed only necrosis and/or cystic change on FNAC but revealed SCC on histology. The cytologic appearance of squamous cell carcinoma depends upon the degree of differentiation by the tumor. Keratinizing cancers are readily identified when cells with abundant sharply demarcated dense eosinophilic cytoplasm and pyknotic nuclei are present in smears. Non keratinizing squamous cell carcinoma are represented by round, oval or polygonal cells with sharply demarcated pale cytoplasm and coarsely granular nuclear chromatin.

Penile cancer social usually originates in the epithelium of the glans penis. There is a tendency for the early signs to be ignored so that they often present late. 95% of the penile cancers are squamous cell carcinoma social AND psychological impact of the disease in the person is highly significant. The cause of penile squamous cell carcinoma is unclear but Human papilloma virus (HPV) appears to be an important causative factor. Lymphatic spread from the carcinoma penis is first to the deep and superficial inguinal nodes and then the pelvic nodes. Enlarged lymph nodes may also be due to secondary infection and a foul, purulent discharge may be noted. Other sites of Distant metastasis being liver and lung.

Malignant anorectal melanoma arises from the melanocytic cells in the anal mucosa. The tumor often invades the lamina propria, filling it with proliferating melanoma cells. Later proliferation of malignant cells often forms a bulky tumor that can project into the anal canal following which the patient presents clinically. Because of the rich vascular and lymphatic supply, lymph node enlargement being the earliest. Rectal tumors often metastasize to pelvic nodes, and anal canal tumors to inguinal lymph nodes.

**Conclusion:**

FNAC of lymph nodes is a very useful, cost effective, time effective, simple tool in the diagnosis of lymph node metastasis. It may be the only tool in the diagnosis of metastatic lesions in the lymph nodes and can help to detect occult primary malignancies. Hence, the cytopathologist plays a vital role in the diagnosis of lymph node metastasis. FNAC is a rapid, safe, easy and non-expensive diagnostic technique which can be used for initial diagnosis of metastatic lymphadenopathy, in a resource challenged environment, confirm secondaries where primary tumor is evident, and for response to treatment.

**REFERENCES:**


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