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Case Report

Small cell lung carcinoma – Multiple metastases in Inguinal node and Anterior abdominal wall - A rare presentation and FNAC diagnosis - an oddity in rarity

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ABSTRACT

Small cell lung carcinoma (SCLC), a highly aggressive cancer accounts for about 13% of all lung cancers, has a strong association with heavy smoking. The common sites of metastases are intrathoracic and supraclavicular nodes. The extrathoracic nodal metastases is a rare clinical presentation. Here we report a rare case of Small cell lung carcinoma metastasizing to extra thoracic sites as an interesting first clinical presentation. With the first diagnostic modality, Fine needle aspiration cytology (FNAC), it was reported as Metastatic deposits with the possibility of Primary from Small cell lung Carcinoma which was further followed by lung biopsy with Histopathological examination(HPE) and Immunohistochemistry (IHC) confirmation.

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1. Introduction

Small cell lung carcinoma, a highly aggressive cancer accounts for about 13% of all lung cancers, has a strong association with heavy smoking.¹ The common sites of metastases are intrathoracic and supraclavicular nodes and the systemic sites includes the liver, brain, bone marrow and adrenals² and the extrathoracic nodal metastases is a rare clinical presentation. We report a rare case of Small cell lung carcinoma metastasizing to inguinal node and anterior abdominal wall in an elderly male patient as the initial presentation.

2. Case Report

62 year old male presented with pain and swelling in the right inguinal region for 1 month duration to the surgery outpatient department, Government Kilpauk Medical College & Hospital. He had complaints of

breathlessness and cough. He was a chronic smoker since 20 years of his age.

On General examination patient was conscious, oriented, thin built and cachectic, had dyspnoea on exertion. On local examination, the swelling present in the inguinal region was 3x2.5 cm in size, ulcerated, covered with necrotic slough (Figure 1). Another swelling measuring 1.5x1 cm was present over the anterior abdominal wall 4cm above the umbilicus (Figure 2). Systemic examination including genital and rectal examination revealed no abnormality. CT chest revealed a heterogeneously enhanced mass lesion measuring 11x7.5x6cm in upper lobe of left lung abutting main pulmonary artery and encasing left pulmonary artery and arch of aorta suggestive of neoplastic left lung mass. FNAC of both the inguinal node and the anterior abdominal wall swelling was performed.

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Fig. 1: Ulcerated inguinal node with necrotic slough



Fig. 2: Anterior abdominal wall swelling

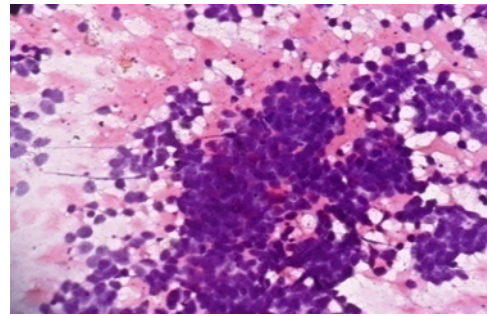


Fig. 4: 10X 40, Irregular clusters of malignant small round cells

Subsequently Bronchoscopy guided biopsy was done and HPE (Figure 5) showed tiny fragments of tumor having sheets of malignant small round cells with hyperchromatic irregular nuclei and scant cytoplasm, a few showing nuclear molding, seen infiltrating into the stroma and was diagnosed as Small cell lung carcinoma (T4M1b, AJCC 8th edition), further confirmed by Immunohistochemistry. TTF 1 showed (Figure 6) intense positivity in tumor cells, Synaptophysin (Figure 7) showed intense positivity in 90% of tumor cells, Chromogranin was equivocal, CD45 was positive in tumor infiltrating lymphocytes.

3. Results and Observation

FNAC (Figures 3 and 4) from both the swellings showed irregular clusters and predominantly dispersed population of malignant small round cells with pleomorphic hyperchromatic nuclei and scant cytoplasm, many with stippled chromatin and some with evidence of nuclear molding and few clusters attempting to form rosettes seen in a haemorrhagic background with scattered lymphocytes and few apoptotic bodies and was reported as metastatic carcinomatous deposits with the possibility of primary from Small cell lung carcinoma.

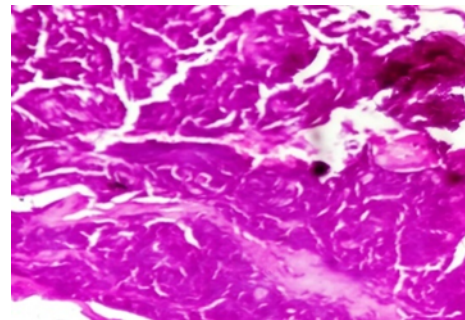


Fig. 5: AZZOPARDI effect - HPE 10X 40

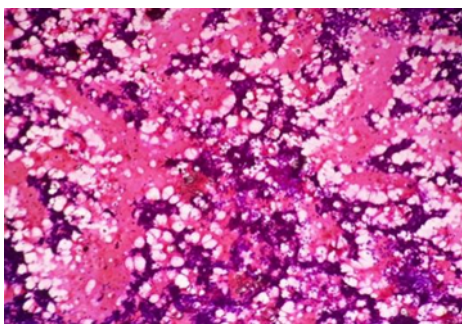


Fig. 3: 10X 10 Malignant small round cells

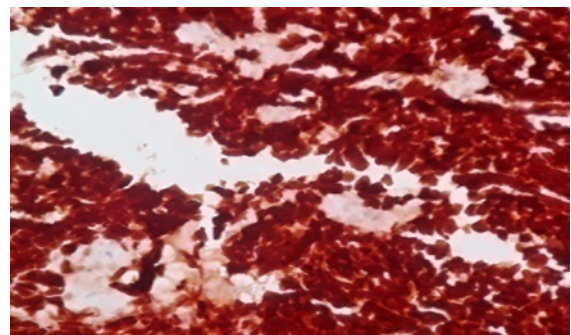


Fig. 6: TTF 1

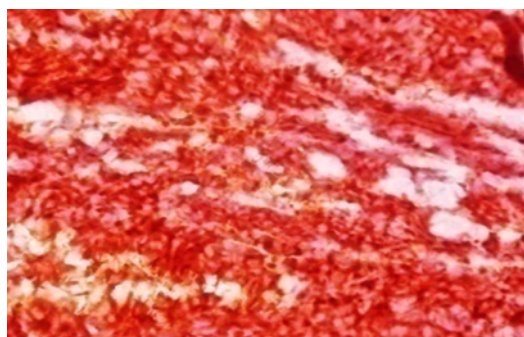


Fig. 7: Synaptophysin

4. Discussion

SCLC is commonly located centrally in major airways and in about 5 percent of cases, it is peripheral. Patients often present late in advanced stage³ due to larger local intrathoracic tumor growth or extrapulmonary distant spread. The prognosis in the SCLC is poor, the median survival for the patients with SCLC without treatment is about 2-4 months,⁴ however the infra diaphragmatic spread of tumors with primary above the diaphragm is rare. Few cases have been reported with inguinal node metastasis with primary from salivary duct cancers, breast cancers and malignant mesothelioma.⁵⁻⁷ Kocak et al. reported a case of NSCLC with inguinal node metastasis.⁸ Extrathoracic nodal metastasis is a rare clinical presentation and the incidence of inguinal node metastasis is about less than 0.1 percent in case of SCLC. Thakur et al. has reported a single case of SCLC with inguinal node metastasis as the initial manifestation.⁹ Although metastatically enlarged inguinal lymph nodes are more common with gastrointestinal or urologic malignancies, a thorough pulmonology work up is mandatory to rule out primaries from lung. High grade lymphoma is considered as a differential diagnosis for small cell lung carcinoma and immunohistochemistry aids in differentiation of lymphoma from small cell lung carcinoma. The prognosis and survival of the patients with SCLC depends upon the TNM staging of the carcinoma with associated chronic smoking has a poor outcome.

5. Conclusion

SCLC is the most aggressive pulmonary malignant neoplasm with a relatively poor outcome. Although extremely rare, metastatic disease from SCLC is considered as a differential diagnosis for a patient presenting with inguinal lymphadenopathy.

6. Source of Funding

None.

7. Conflicts of Interest

All contributing authors declare no conflicts of interest.

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