A case of primary systemic amyloidosis presenting with multiple lymphadenopathy

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Amyloidosis may be defined as a group of disorders of extracellular deposition of the fibrous protein amyloid in one or more sites of body with variable causes and pathogenesis which have in common characteristic histopathologic features, leading to organ dysfunction and death. Primary systemic amyloidosis (PSA) is a rare disease and usually present in the heart and frequently in the gastrointestinal tract, tongue, skeletal muscle and skin but rarely encountered in the lymph node. The prognosis in patients with PSA remains poor, particularly if untreated. The 78-year old male patient was admitted to our hospital with palpable mass on both axillary area. Computed tomography (CT) showed extensive lymphadenopathy in both neck, supraclavicular fossa, axil, inguinial, mediastinum and abdominal periaortic area. The diagnosis was made by excisional biopsy of involved Rt. axillary lymph nodes. Masses of acellular, amorphous, and eosinophilic material replace most of the nodal tissue. Thought to be amyloid substances, as well as the lymph nodes has been deposited in the soft tissue surrounding lymph nodes. Hematoxylin and eosin (H&E) stain showing amyloid deposits in biopsy specimen of lymph node tissue. Congo red-stained material showed the characteristic green birefringence of amyloid material, confirming it as amyloid. CT and renal sonography findings were not observed in the specificity of both kidney. Infiltrative cardiomyopathy such as amyloidosis suspected in Heart MRI but transthoracic echocardiogram was normal without evidence of cardiac amyloid affection. Multiple paratrabeular infiltration of abnormal lymphoid cells were observed in bone marrow (BM) and free lambda light chain positive findings were observed. Amyloid did not invade other solid organs but lymph node and BM involvement was confirmed. Amyloidosis was shown and treatment with melphalan and prednisone was initiated. We have experienced one case of PSA caused by amyloidosis which is confirmed by the histopathologic evaluation. The incidence has been reported rare, clinically mimic lymphoma. Therefore, pathological examination is necessary when mediastinal lymph nodes are enlarged. We report this rare case with literatures review.

GLUT-1 and metabolic activity in PET-CT may predict tumor response, RFS in LD-SCLC patients

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Limited disease of small cell lung cancer (LD-SCLC) shows 70-90% of response rate after concurrent chemo-radiation (CCRT). However, high relapse rate and short relapse free survival (RFS) were encountered. This study was aimed to evaluate the metabolic activities estimated by 18F-FDG PET-CT as prognostic factors and analyze the interrelationship between tumor metabolic activities and key molecular markers influencing tumor metabolism and biologic behavior. 41 patients with LD-SCLC receiving 4 cycles of EP (Etoposide 120 mg/m², D1-3, Cisplatin 60 mg/m² D1) and 2 cycles of EP (Etoposide 130 mg/m² D1-3, Cisplatin 30 mg/m² D1) CCRT were enrolled. Sex ratio was 37:4. Median age was 63 (42-84). Pre/post-treatment SUVmax of primary tumor and intrathoracic LN were revised with SUV of liver (SUVliveravg). The difference between SUVliveravg and F/U SUVliveravg were significantly associated with RFS (HR=2.8 and 0.3, p=0.043 and 0.004). Meanwhile, gender, pretreatment LDH, tumor response and SUVliveravg were correlated with OS (HR=12.1, 3.7, 10.1 and 0.2, p=0.006, 0.037, 0.008 and 0.014). Higher positively stained tumor cell % of GLUT-1 (> 75%) was associated with ORR with statistical significance (p=0.012). Higher pretreatment LDH level (> 400IU) was significantly associated with HIF-1a IRS (p=0.029). Taken together, our data suggest that GLUT-1 and SUVliveravg, connected to glucose metabolism, might be predictive markers for ORR and RFS after definitive CCRT in LD-SCLCs.