EDİTÖRE MEKTUP LETTER TO THE EDITOR

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Simultaneous Presentation of Acute Monoblastic Leukemia and Lung Cancer

Eş Zamanlı Tanı Alan Akut Monoblastik Lösemi ve Akciğer Kanseri

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Acute monoblastic leukemia (AMoL) (French-American-British (FAB) type M5a), occasionally presents simultaneously with multiple myeloma, other types of plasma cell dyscrasia, non-Hodgkin lymphoma such as chronic lymphocytic leukemia, but there is no report of its presentation with squamous cell lung cancer.[1]

An 61-year-old man was admitted to the Atatürk University Hospital because of fatigue, weakness, anorexia, weight loss, shortness of breath and chest pain for 2 month. He had been a smoker for 40 years. The blood pressure was 110/70 mmHg, the pulse was 98/min, the temperature was 36,7°, and the respirations were 22/min. Physical examination revealed wasting, pallor, gum hypertrophy, hepatomegaly, splenomegaly, inspiratuar crackle on the left side. Chest X –ray revealed a mass on the left side. A whole body 18F-fluorodeoxyglucose (FDG) positron emission tomography (PET) scan was performed and it revealed a left upper lobe apicoposterior segment lung mass (29×47x29 mm) (standardized uptake values (SUVs) of 19.49), hiler lymphadenopathy ((SUVs) of 5.79) and splenomegaly (Figure 1).

Left CT-guided biopsy of the lung mass provided a histopathological diagnosis of squamous cell lung cancer. Staining for thyroid transcription factor 1 (TTF-1) was negative, staining for p63 was positive, Napsin-A negatif, CK5/6 pozitif. The blood count showed a white cell count 21,530/mm^3, hemoglobin 7,7g/dl, and platelet count 8,000/mm^3. Blood chemistry revealed total serum protein 5.4g/dL, albumin 3.3g/dL, alkaline phosphatase 102U/L, AST 12U/L, ALT 33U/L, BUN 32mg/dL, Cr 1mg/dL, LDH 252U/L and uric acid 6.5mg/dL. Coagulation profiles were normal (PT 16.5sec (control from 10 to 15.8 sec) aPTT 30.5sec (control from 26.5 to 40sec)). Because of cytopenia we thought bone marrow infiltration but peripheral blood smear showed markedly increased blasts and decreased platelet count.

Findings on bone marrow examination of the patient showed that most of nucleated cells were monoblasts (Figure 2) and immunophenotype of

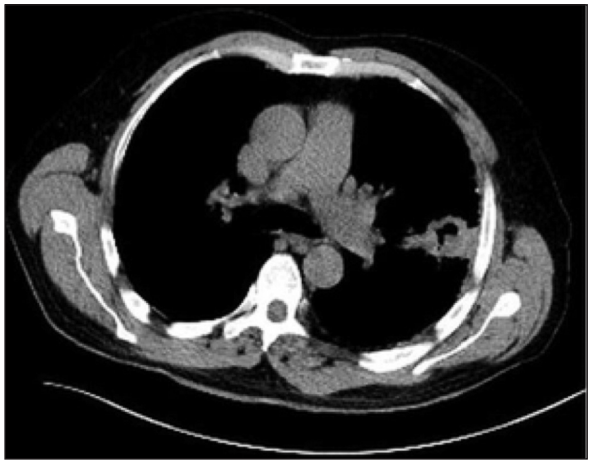

FIGURE 1: An axial section of the treatment planning computed tomography scan fused with positron emission tomography. A left upper lobe lung mass can be seen.

those cells showed CD13 +, CD33 +, CD56 +, CD 14 +, CD 15 +, CD 11B +, CD 64 + and HLA -DR + but that were negative on myeloperoxidase. He was diagnosed as acute monoblastic leukemia (M5a) (Figure 3).

The patient unfortunately died the 21. day in a context of a disseminated intravascular coagulation.

AMoL is a clinical entity, disseminated intravascular coagulation, hyperleukocytosis and frequently exhibiting extra-medullary involvement, particularly in the skin, gingiva, and central nervous system.[2] Therapeutic results are generally poor due to high rates of fatal complications during induction, induction failures, and frequent extramedullary and medullary relapses.[3]

Lung cancer is the leading cause of cancer-related death worldwide.[4] Squamous cell lung cancers account for 20% of all lung cancers. This equates to 350,000 patients diagnosed with this disease worldwide every year.[5]

We want to emphasize with this case bone marrow infiltration may not always be a solitary organ tumors infiltration, it may be accompanied by another hematological disease. So, peripheral blood and bone marrow (if necessary) examination should be done in all solitary organ tumors with cytopenia.

To the authors' knowledge, this is the first report of the simultaneous presentation of acute monoblastic leukemia and squamous cell lung cancer.

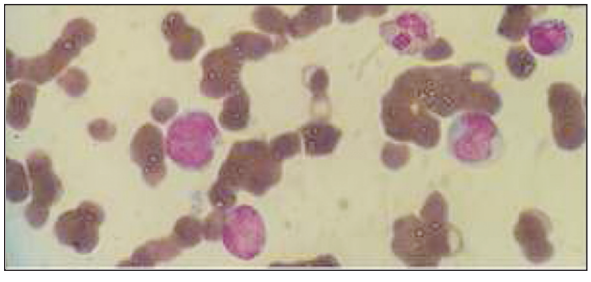

FIGURE 3: Bone marrow flow cytometry demonstrating populations of acute monoblastic leukemia.

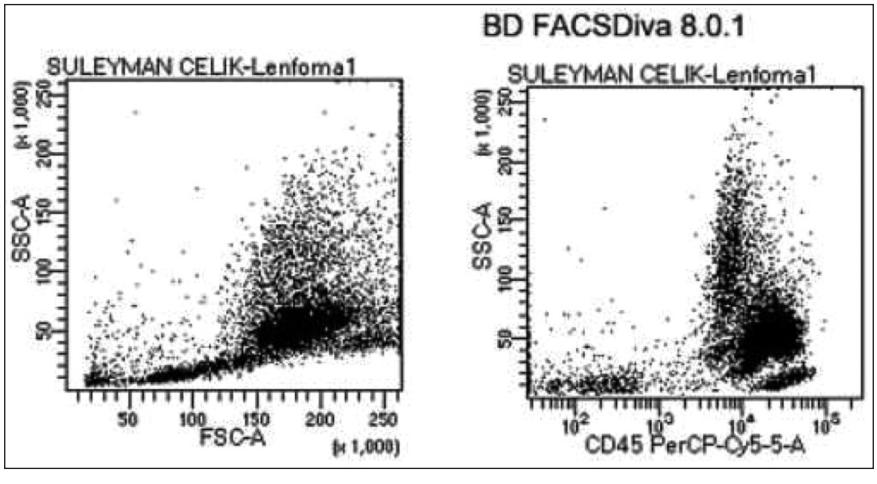

FIGURE 2: Marrow aspirate smear with 67% monoblasts (Wright-Giemsa, 250×).

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Rahşan Yıldırım, Fuat Erdem;* ***Design:*** *Rahşan Yıldırım, Elif Yılmazel Uçar;* ***Control/Supervision:*** *Elif Yılmazel Uçar;* ***Data Collection and/or Processing:*** *Rahşan Yıldırım, İlker Bay, Ömer Topdağı;* ***Analysis and/or Interpretation:*** *Elif Yılmazel Uçar, Fuat Erdem;* ***Literature Review:*** *Rahşan Yıldırım;* ***Writing the Article:*** *Rahşan Yıldırım, Elif Yılmazel Uçar;* ***Critical Review:*** *Fuat Erdem;* ***References and Fundings:*** *Rahşan Yıldırım, Elif Yılmazel Uçar;* ***Materials:*** *Elif Yılmazel Uçar, İlker Bay.*

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