

Letter to the Editor

Squamous Cell Lung Cancer Presenting with Initial Rare Paraneoplastic Hematological Findings

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Dear Editor,

Hematologic paraneoplastic syndrome, known as paraneoplastic leukemoid reaction (PLR), has been associated with several solid tumors and is classified in the literature as having more than 50,000 leukocytes/mm³ [1]. Although rare, solid tumors presenting with eosinophilia and thrombocytosis have been reported in the literature [2,3]. We report a 71-year-old male patient who was a former smoker (41 pack-years) diagnosed with stage IV lung cancer. He was admitted to the endocrinology outpatient clinic with fatigue and dry mouth. The patient was referred to the hematology outpatient clinic due to leukocytosis (27.950 mm³), eosinophilia (4.320 mm³), thrombocytosis (742.000 mm³), and anemia (11 g/dL) in laboratory tests. Due to the patient's clinical and laboratory findings, bone marrow aspiration and biopsy were performed. Bone marrow aspiration revealed bone marrow metastasis and hypereosinophilia (Figure 1). Because of the presence of metastases in bone marrow aspiration, the patient underwent computed tomography (CT) of the neck, chest, abdomen, and pelvis with intravenous contrast solution. In the thorax CT of the patient, there was a pleural effusion measuring 23 mm was noted in the thickest part of the right hemithorax. A mass atelectasis complex was observed in the lower lobe of the right lung with a size of 95x60 mm and an invasive appearance in the posterior mediastinum. The right lower lobe bronchus was completely obliterated (Figure 2). Sampling with thoracentesis and bronchoscopic biopsy performed on the patient. He was diagnosed with

non-small-cell carcinoma and squamous cell carcinoma lung cancer (Figure 3). PLR is an explanation for hyperleukocytosis in solid tumors. However, this is still an exclusion criteria for diagnostic paraneoplastic hematological syndromes, which are usually asymptomatic and often present either at diagnosis or during disease progression, typically in advanced disease [4]. It is a possible indicator of disease progression and response to therapy because it is known to be linked to poor prognosis and clinical outcomes [4]. As a result, it should be kept in mind that patients presenting with leukocytosis, thrombocytosis, and eosinophilia may have paraneoplastic findings due to not only hematological malignancies but also solid tumors.

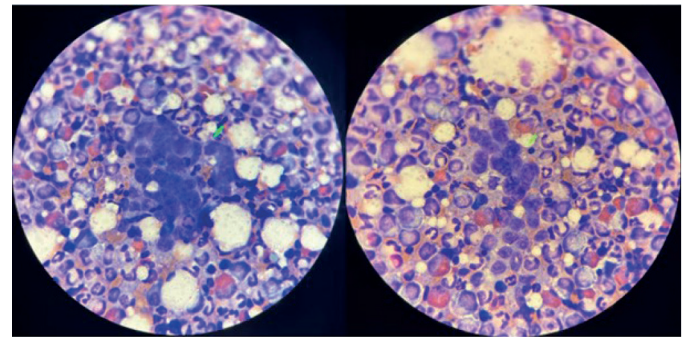


Figure 1. Squamous carcinoma cells clustered together with hematopoietic precursor cells, bone marrow aspiration

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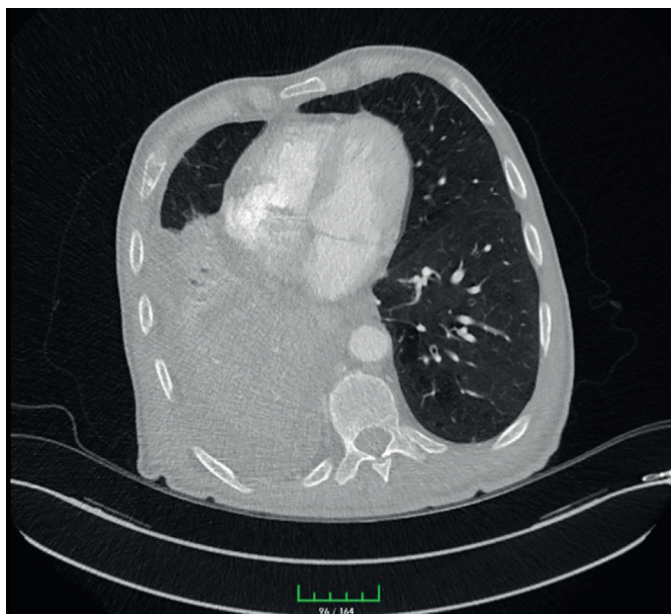


Figure 2. A mass atelectasis complex in the lower lobe of the right lung with a size of 95x60 mm

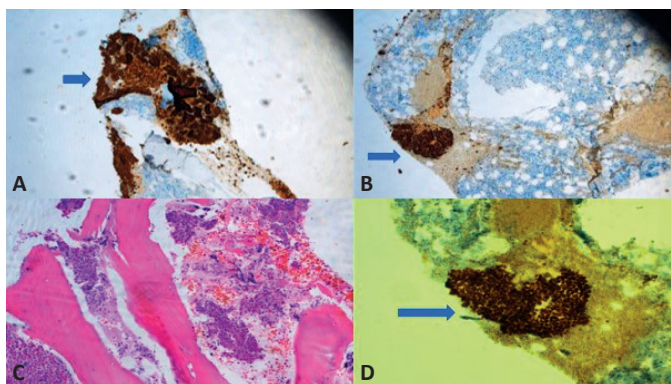


Figure 3. A, B) Tumor infiltration, immunohistochemical staining of pan-cytokeratin 10x10, C) Tumor infiltration on the upper side of the hematoxylin-eosin stained slide 10x10, D) P40 immunohistochemical staining 20x10

Ethics

Informed Consent: Informed consent was obtained from all patients included in the study.

Footnotes

Authorship Contributions

Surgical and Medical Practices: C.U., Concept: R.Ç., Design: R.Ç., Data Collection or Processing: C.U., Analysis or Interpretation: R.Ç., Literature Search: R.Ç., Writing: R.Ç.

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References

1. Kasuga I, Makino S, Kiyokawa H, Katoh H, Ebihara Y, Ohyashiki K. Tumor-related leukocytosis is linked with poor prognosis in patients with lung carcinoma. *Cancer*. 2001;92:2399-2405.
2. Badra T, Nehme S, Baydoun O, El Hachem G. MPN-092 Paraneoplastic Eosinophilia: An Unusual Initial Presentation of Metastatic Pancreatic Adenocarcinoma. *Clin Lymphoma Myeloma Leuk*. 2022;22(Suppl 2):325-326.
3. Heusinger J, Czech P, Hengstler H, et al. [Paraneoplastic hyperleukocytosis in lung cancer]. *Inn Med (Heidelb)*. 2022;63:1312-1315.
4. Ferrão JB, Sardinha MP, Dutra E. Hyperleukocytosis in Solid tumors: A Rare Paraneoplastic Syndrome Associated with Poor Prognosis. *Am J Med Sci*. 2021;362:211-214.