



Ascites as the first presentation of plasmablastic lymphoma in HIV positive individual

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Introduction

Human Immunodeficiency Virus (HIV) induced weakening of the immune system leads to increased frequency of lymphomas in HIV infected persons. Plasmablastic lymphoma (PBL) is a rare, aggressive post-germinal center B cell neoplasm that represents approximately 3% of HIV related lymphomas (1). Clinically, PBL typically presents with extranodal involvement and the most commonly affected sites include the oral cavity, gastrointestinal tract, lymph nodes, paranasal sinuses, and skin (2).

Aims and Objectives

Here we describe a case of HIV positive patient who presented to the emergency department with ascites of uncertain etiology.

Materials and Methods

Cytological, immunophenotypic and bacterial culture studies was done in ascitic fluid collection from 59 years old male. Flow cytometric analysis was done stepwise with markers: CD2, CD3, CD4, CD5, CD7, CD8, CD10, CD13, CD15, CD16, CD19, CD20, CD33, CD34, CD38, CD43, CD45, CD57, CD138, HLA-DR, surface and cytoplasmic kappa and lambda. In addition, radiographic and histological evaluation was done.

Results

Analysis of ascitic fluid showed cytosis 1400 cells/mkl with 96% lymphocytes. Bacterial studies was negative. Morphological evaluation revealed atypical lymphocytes with abundant basophilic cytoplasm with vacuoles, pleomorphic nuclei and nucleoli (Figure 1). Flow cytometry evaluation indicated atypical population composed of large cells with increased forward scatter, negative for all evaluated markers except CD43, CD138, partial expression of CD7, CD56 and dim expression of CD38 and CD45. Peripheral blood count indicated absolute lymphopenia. Mediastinal and peritoneal lymphadenopathy was detected on computed tomography. A histomorphology from endoscopically suspicious duodenal ulcer confirmed diagnosis of PBL.

Conclusions

Initial presentation of PBL as an ascites is a rare finding. Furthermore, diagnosis of PBL is challenging – cytomorphological features of neoplastic cells resemble immunoblastic variant of diffuse large B cell lymphoma, but phenotype shows lack of B cell markers and expression of plasma cell antigens. Appropriate correlation of clinical, laboratory and radiographic findings are crucial in establishing the correct diagnosis.

Keywords

plasmablastic lymphoma, HIV, ascites, B cells

References

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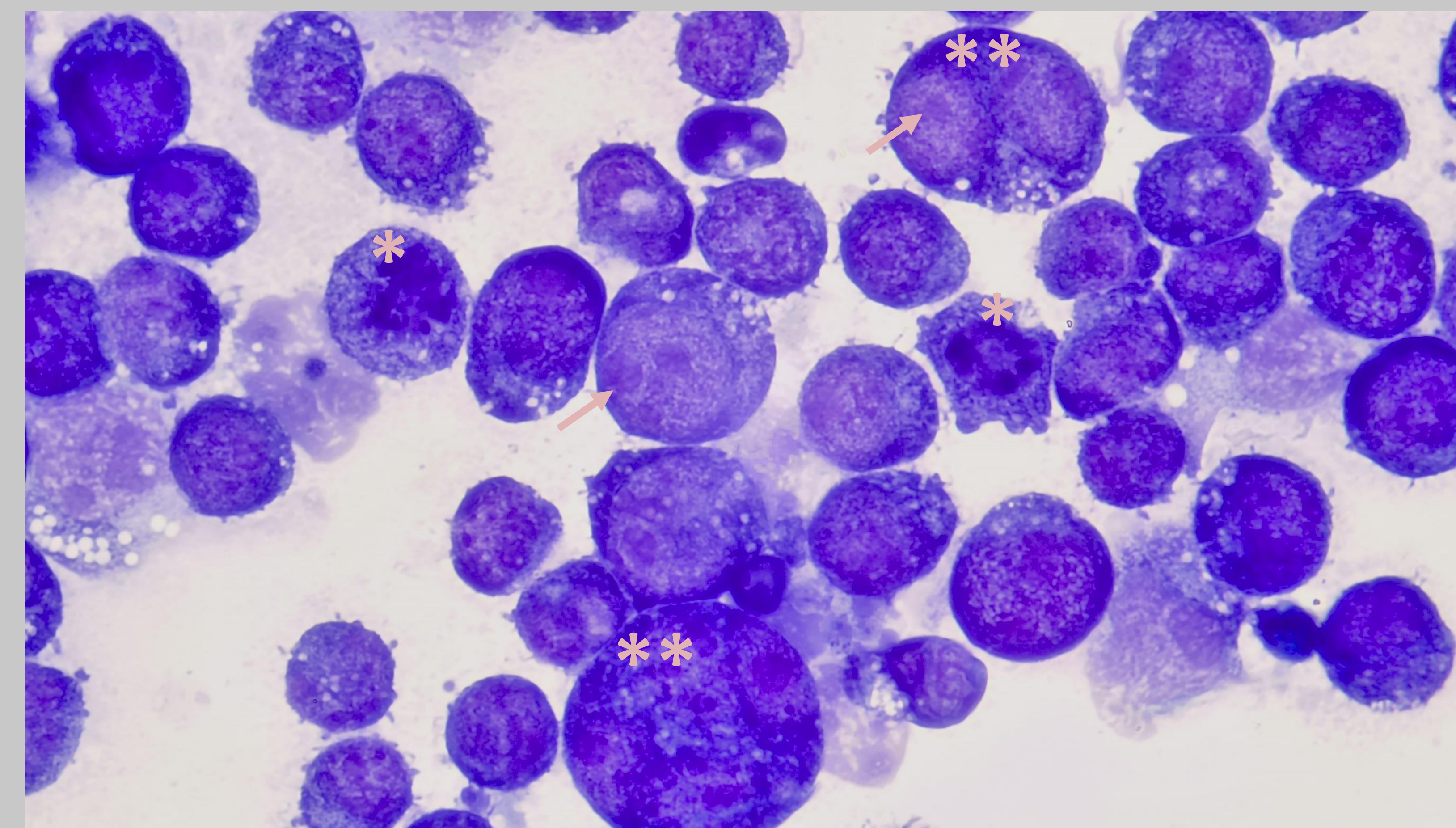


Figure 1. Ascitic fluid with large atypical lymphocytes. Lymphomatous cells are pleomorphic with abundant basophilic cytoplasm with occasional vacuoles. Mitoses (*) and multinucleated cells (**) are visible. Cells display nucleoli (arrow). Romanowsky staining. Magnification x 100.

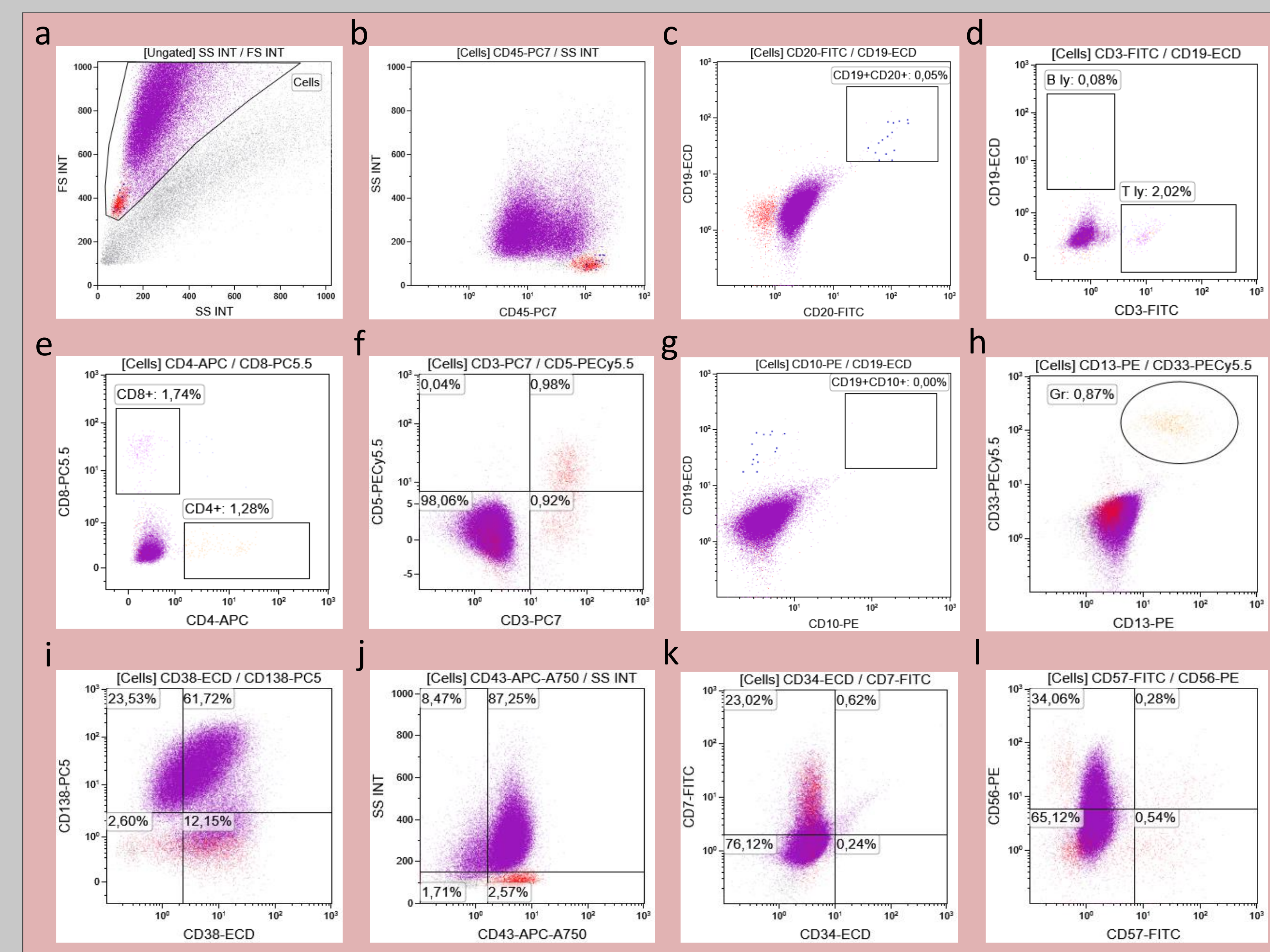


Figure 2. Flow cytometry staining of ascitic fluid shows large cells (a) with dim expression of CD45 (b). Atypical CD45 dim cell population does not express B cell markers CD19, CD20 (c), T cell markers CD3 (d), CD4, CD8 (e), CD5 (f), nor CD10 (g) and myeloid antigens CD13, CD33 (h). Lymphomatous cells are positive for CD38 (dim) and CD138 (i), CD43 (j) and shows partial positivity for CD7 (k) and CD56 (l).