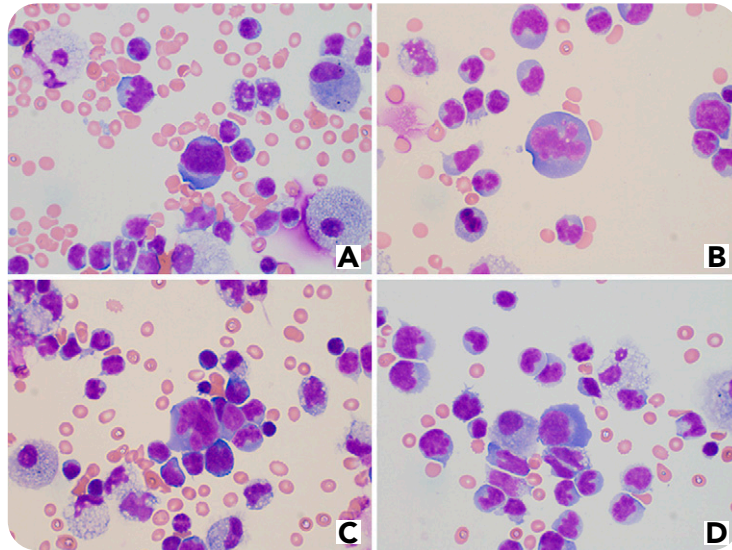


## COVID-19–induced atypical pulmonary lymphocytes

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A 39-year-old man treated for a T-cell/histiocyte-rich large B-cell lymphoma–like transformation of nodular lymphocyte-predominant Hodgkin lymphoma with an aggressive and diffuse clinical presentation was hospitalized for fever and aplasia after the fourth cycle of rituximab plus doxorubicin, cyclophosphamide, vindesine, bleomycin, and prednisone. Results of the polymerase chain reaction test routinely performed in the context of pandemic COVID-19 were positive. Initially, there were no severe pulmonary symptoms, and the computed tomography scan showed moderate lung damage. Because persistence of lymphoma was proven based on results of the axillary lymph node biopsy, second-line rituximab, dexamethasone, cytarabine, and cisplatin treatment was initiated.

Eleven days after the first cycle, the patient was hospitalized for febrile aplasia. The computed tomography scan performed to

evaluate his pulmonary status revealed signs compatible with COVID-19. A bronchoalveolar lavage was performed, which showed  $160 \times 10^3$  cells/mL, 3% neutrophils, 2% eosinophils, 25% lymphocytes, 20% macrophages, and 50% of larger lymphoid cells, some with very atypical aspects (panels A–D, original magnification  $\times 1000$ , May–Grünwald–Giemsa stain). Due to the refractory lymphoma context, a pulmonary localization was suspected. The flow cytometry analysis (DURAClone 10-color panel; Beckman Coulter) showed the absence of B CD19- and/or CD20-positive lymphoid cells and 96% of CD3-positive lymphocytes, of which 71% were CD8-positive lymphocytes. Results of the COVID-19 polymerase chain reaction test were positive on this sample. We concluded that these cells represented atypical reactive lymphocytes in the context of a COVID-19–induced pneumonia; this hypothesis was confirmed by the subsequent clinical course.