Aleukemic leukemia cutis

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TO THE EDITOR: I read with great interest the article “Aleukemic leukemia cutis” by Abraham et al., as we recently had a case of this at my institution. The case is unique and quite intriguing; however, I found the pathologic description confusing and imprecise.

The authors state, “The findings were consistent with leukemic T cells with monocytic differentiation.” This is based on their findings that the tumor cells expressed CD4, CD43, CD68, and lysozyme. However, the cells were negative for CD30, ALK-1, CD2, and CD3.

First, I must contest the authors’ claim that “the cells co-expressed T-cell markers (CD4 and CD43)”: CD4 and CD43 are not specific for T cells and are almost invariably seen on monocytes, especially in acute monoblastic/monocytic leukemia (AMoL; also known as M5 in the French-American-British classification system). Therefore, the immunophenotype is perfect for an AMoL, but since there was no significant blood or bone marrow involvement and it was limited to the skin, this would best fit with a myeloid sarcoma, which frequently has a monocytic immunoprofile.

Additionally, this would not be a mixed-phenotype acute leukemia, T/myeloid, not otherwise specified, as that requires positivity for cytoplasmic CD3 or surface CD3, and that was conspicuously absent. Therefore, the appropriate workup and treatment should have essentially followed the course for acute myeloid leukemia, which is unclear from the present report as there is no mention of a molecular workup (eg, for FLT3 and NPM1 mutations). This would, in turn, have important treatment and prognostic implications.

The reason for my comments is to bring to light the importance of exact pathologic diagnosis, especially when dealing with leukemia. We currently have a host of treatment options and prognostic tools for the various types of acute myeloid leukemia, but only when a clear and precise pathologic diagnosis is given.

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REFERENCES

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IN REPLY: We greatly appreciate our reader’s interest and response. He brings up a very good point. We have reviewed the reports and discussed it with our pathologists. On page 85, the sentence that begins, “The findings were consistent with leukemic T cells with monocytic differentiation” should actually read, “The findings were consistent with leukemic cells with monocytic differentiation.” The patient was appropriately treated for acute myeloid leukemia.

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