A 16-year-old female with acute myelomonocytic leukemia (AML) received the AML-BFM-2004 protocol containing cytosine arabinoside (ARA-C), idarubicine and etoposide as remission induction chemotherapy. After first induction regimen, she developed papular purpuric eruption spread over her trunk and extremities (Figure 1, 2). There were no complaints of pruritus and pain related to the eruption. She does not have rheumatologic and any other diseases in her past history. Her sedimentation rate, liver and kidney function tests, complement 3, complement 4 were normal; antinuclear antibody, anti dsDNA, Epstein-Barr virus, cytomegalovirus,
parvovirus B19 and hepatitis serologies were negative. Skin biopsy revealed non-specific purpuric eruption with superficial perivascular lymphocytic infiltration and extravasation of eritrocytes (Figure 3). There were no perivascular polymorphonuclear leukocyte infiltration and vessel wall fibrinoid necrosis. Suspecting drug eruption, antihistamines were administered and her skin eruption disappeared slowly over two weeks. Which chemotherapy agent is most likely responsible for this kind of skin eruption according to the history, laboratory, physical and pathological findings?

FIGURE 3: Skin biopsy showing perivascular inflammation and eritrocyte extravasation under the epithelium (H&E, x100).
(See for colored form http://pediatr.turkiyeklinikleri.com/)