

Acute myeloid leukemia (FAB-M4) with eosinophilia in a patient with metastatic breast cancer

A 30-year old woman had a stage I left breast adenocarcinoma which was resected. She had a recurrence in the same breast the following year which was also locally excised. She was diagnosed as having bone metastases a year later and started on tamoxifen and goserelin. Three years after initial presentation she developed AML M4 with eosinophilia and inv(16)(p13q22) which was managed with idarubicin and cytarabine-based induction chemotherapy. Cytogenetic remission was consolidated with 2 further cycles of chemotherapy. After being in complete remission for 10 months she developed mild pancytopenia with a normal blood film. Her bone marrow aspirate (A) revealed relapsed AML with abnormal eosinophilia. Cytogenet-

ic studies confirmed the presence of inversion 16. The trephine biopsy (C) remarkably showed the leukemic infiltrate alongside areas of metastatic breast cancer (B) with immunostaining for epithelial membrane antigen (D) and myeloperoxidase (E) highlighting the two malignant populations; breast cancer and AML, respectively. The patient received re-induction chemotherapy but died of neutropenic complications three weeks later.

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