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# Extramedullary blast crisis of secondary CML accompanying marrow fibrosis

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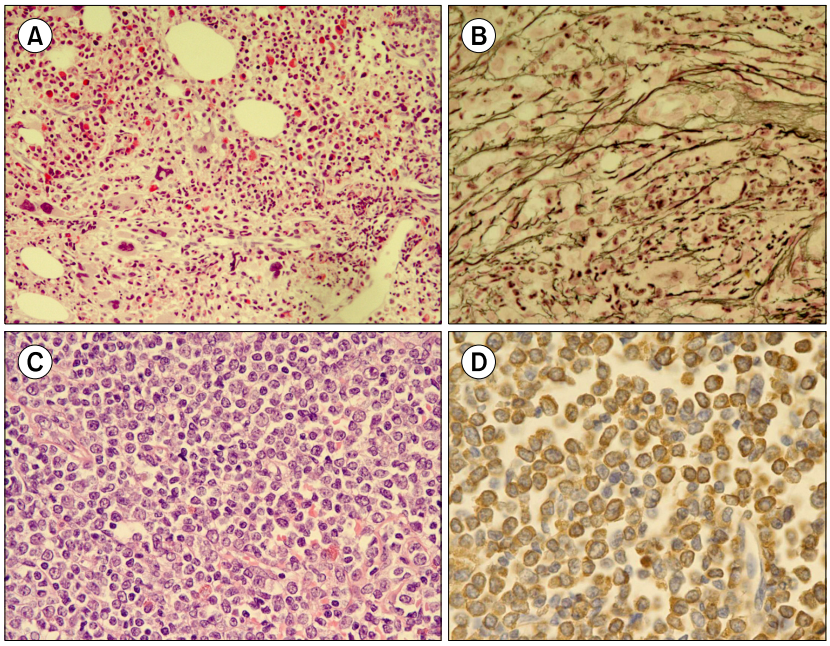


A 54-year-old man was referred to our hospital with right flank pain. Three years ago, he was diagnosed with gastric mucosa-associated lymphoid tissue (MALT) lymphoma and successfully treated with radiotherapy. CBC showed a WBC count of $24.12\times10^9$/L (70% neutrophil, 14% lymphocyte, 4% monocyte, 2% eosinophil, 1% basophil, 4% metamyelocyte, 5% myelocyte, and 1/100 WBCs normoblast); Hb level, 10.2 g/dL; and platelet count, $416\times10^9$/L. Bone marrow (BM) examination showed granulocytic and megakaryocytic proliferation with moderate dysplastic megakaryopoiesis (**A;** H&E stain, ×200), and diffuse reticulin fibrosis (**B;** reticulin stain, ×400). Primary myelofibrosis was the first diagnostic consideration after BM study. Chromosomal analysis, however, showed t(9;22)(q34;q11.2), indicating CML. Concurrent abdomen computerized tomography revealed enlarged inguinal lymph nodes. Inguinal lymph node biopsy showed diffuse infiltration of immature cells (**C;** H&E stain, ×400), which were positive for myeloperoxidase **(D)**. *BCR/ABL1* rearrangement was demonstrated by fluorescence in-situ hybridization analysis, and a diagnosis of granulocytic sarcoma (GS) was made. Accompanying extramedullary myeloid tumor, CML was classified as blastic phase. Secondary CML with a simultaneous manifestation of GS is rare. Combining morphological and molecular-cytogenetic approaches can help detect the coexistence of both neoplasms, especially in CML cases with fewer typical morphologic features.