# BONE MARROW NECROSIS FOLLOWING CLADRIBINE USE IN A PATIENT DIAGNOSED WITH HAIRY CELL LEUKEMIA

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## INTRODUCTION

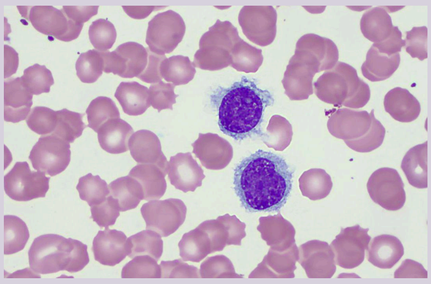
Bone marrow necrosis (BMN), refers to the necrosis of hematopoietic tissue and stromal components. It is associated with various causes, including hematologic malignancies and chemotherapy. BMN linked to cladribine is particularly rare.[1,2]

## CLINICAL CASE

We present the case of a 36-year-old male with no prior medical history who was diagnosed with hairy cell leukemia (HCL) after presenting with leukocytosis (44.1 m/mm3) and lymphocytosis (85%) with morphology of hairy cells. The disease exhibited poor prognostic markers such as splenomegaly, elevated LDH, and beta-2 microglobulin levels (B2m). In this patient, the spleen measures 21.3 cm with a volume of 949 ml, LDH 242 UI/L and B2m 2.5 mg/L..

First-line treatment with rituximab and bendamustine (342 mg) was initiated, but the patient developed abdominal pain and drug intolerance after the first dose of bendamustine, leading to discontinuation. The V600E mutation was reported by PCR.

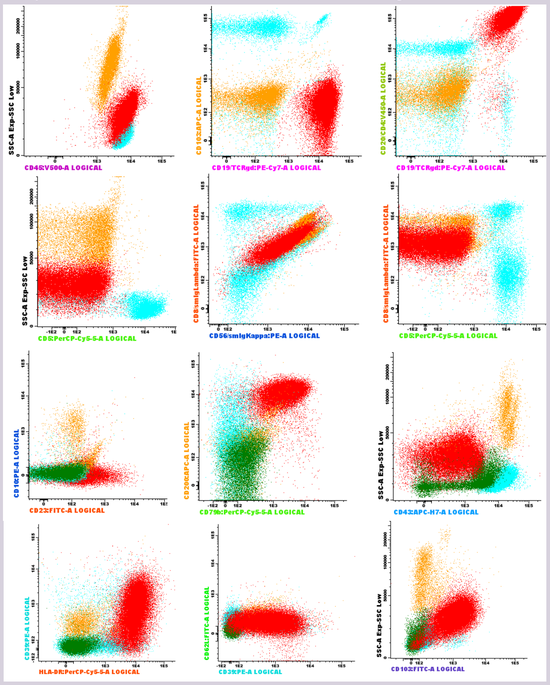
However, the pancytopenia continued for 2 months.



HAIRLY CELLS IN BONE MARROW

The peripheral blood smear showed only red blood cells with a decreased white cell line. No hairy cells were observed.

Bone marrow biopsy revealed necrotic tissue in 80% replacing hematopoietic elements in seven bony trabeculae, lymphocytes and other cell lines were not observed. A second biopsy confirmed these findings. Over time, hematopoietic recovery began without further chemotherapy. The most recent complete blood count showed leukocyte recovery (7.69 m/mm3), hemoglobin 10.20 and plaletsof 157 m/mm3, no hairy cells.



FLOW CYTOMETRY: CD45+, CD19+, CD200+, CD103+.

## CONCLUSIONS

This case highlights the importance of considering BMN as a complication in patients with persistent cytopenia's following chemotherapy. While dry tap aspirations are common in both HCL and BMN, they can obscure diagnosis. Early recognition of BMN, even in the context of active disease, may prevent unnecessary further chemotherapy and guide supportive management. In this patient, the identification of BMN allowed a conservative approach, resulting in gradual marrow recovery and clinical improvement.[1,2]

## REFERENCES

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