Naked Megakaryocyte Nuclei in a Patient with Myelodysplastic Syndrome

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A 64-year-old woman with myelodysplastic syndrome (MDS) presented with pneumonia. At that time, naked megakaryocyte nuclei (NMN), compact lobulated megakaryocyte nuclei denuded of cytoplasm, appeared in her peripheral blood (Picture). The NMN increased to about 20% of the total white blood cell counts (WBC: 14.1×10⁹/L) and these cells were CD41+/CD61+ by the flow cytometry analysis. Bone marrow aspiration was performed and normocellular marrow with 2.0% myeloblasts was identified. The patient recovered from pneumonia after receiving antibiotics treatment. However, an increase in the NMN (about 0.5-1.0×10⁹/L) continued for more than 9 months with stable MDS.

The mechanism of NMN generation and its pathological significance is unclear. NMN may be observed in the bone marrow, particularly in malignant diseases and HIV (1, 2). However, NMN observed in the peripheral blood is rare. More case studies and reports need to be conducted in order to fully elucidate the generation of NMN and its pathological significance.

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References


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