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A case report of relapsed multiple myeloma with concurrent infection of aspergillosi

Jiantuo Liu, Hongrui Li, Li Jiang, Shanlin Zheng, Xuekui Qiu, Haiqin Zhang

Wuhan Kindstar Clinical Diagnostic Institute

INTRODUCTION

Background: A 68-year-old male was admitted to our hospital complaining of multiple pulmonary nodules. He had a history of multiple myeloma for 8 years, complete remission(CR) was acheived after treatments with VCD(bortezomib/cyclophosphamide/dexamethasone) and IRd(ixazomib/lenalidomide/dexamethasone) regimens during this period.

Purposes: study on a case of refractory MM

Methods: we performed a retrospective study to analyze the clinical characteristics, laboratory examination, and treatment.

Results

A peripheral blood examination showed the following results: WBC 0.5×109/L, HB 54g/L, PLT 36×109/L. Primary and young plasmocytes accounted for 4.0% of the bone-marrow cells(Fig1 A). A Lung CT showed multiple nodules in both lungs. Pathogen metagenomic sequencing (tNGS) and fungal culture showed aspergillus. A histopathology analysis showed 80% monoclonal plasma cells with expression of CD3, CD20, Pax-5, CD56, CD138, Lambda and MUM-1(Fig1 B). An immunophenotype analysis showed 2.5% abnormal plasma cells with expression of CD56, CD138 and cLambda. A fluorescence in situ hybridization (FISH) analysis revealed 13q-and 1q21+(Fig1 C). Immunoglobulin: IgG 11.7g/L, IgA 1.05g/L, IgM 0.89g/L. Serum/urine immunofixation electrophoresis: λ light chain. Urinary light chain quantification: κ0.03mg/L, λ0.76mg/L. In conclusion, the patient definitive diagnosed relapsed MM with concurrent infection of aspergillosis. The patient had been in good condition after treatment with DKd(Carfezomib/Daletumab/dexamethasone) regimen for MM and Isavuconazole for aspergillosis. To date, the patient remained CR undergone autologous hematopoietic stem cell transplantation(auto-HSCT).

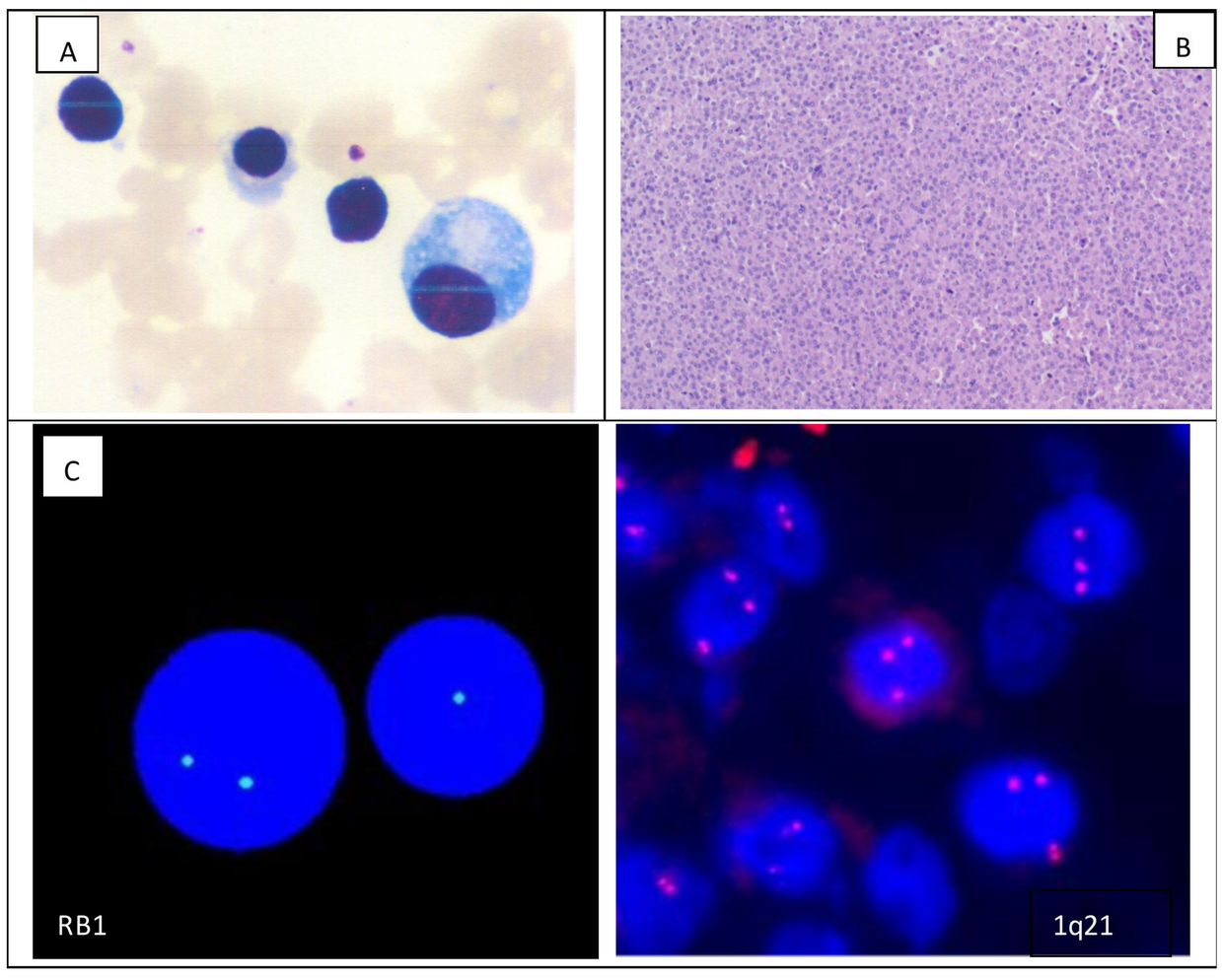

Fig1 Results of examination. A. Primary and young plasmocytes accounted for 4.0% of the bone-marrow cells. B. Monoclonal plasma cells accounted for 80% suggesting that plasma cell tumor. C. FISH analysis. RB1 probe, 1G pattern suggesting that 13q14 deletion. 1q21 probe, 30 pattern suggesting that 1q21 amplification.

Conclusions

MM is a malignant disease characterized by abnormal proliferation of cloned plasma cells. Induction therapy is mainly based on a three-drug combination regimen of proteasome inhibitors, immunomodulators and dexamethasone, auto-HSCT should be be performed after remission. Long-term chemotherapy can lead to a decline in the immune function of MM patients and an increased risk of fungal infections.

REFERENCES

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E-Mail: kx2713@163.com