therapy (p = 0.978, p = 0.902 respectively). Following low-dose maintenance therapy, the median PFS2 was 26.167-months (95% CI 5.571–46.762) in the lenalidomide free therapy group and 25.433-months (95% CI 0.08–50.787) in the lenalidomide-based second line therapy group (p = 0.581). Although median OS2 could not be calculated, at 60-months, the survival rate was 74.5% in patients receiving lenalidomide-based treatment, while it was 62.3% in patients receiving treatment without lenalidomide (p = 0.637). **Conclusion:** This study introduces the concept of low dose versus MTD lenalidomide maintenance. MTD does not confer a survival benefit and is associated with increased toxicity. Our findings support low-dose maintenance as a preferable approach, although lenalidomide refractoriness remains a concern.

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PP 26_Case report

ASSESSMENT OF INTERPHASE FLUORESCENCE IN SITU HYBRIDIZATION (FISH) TEST IN A PATIENT WITH MULTIPLE MYELOMA: EXPERIENCE OF OUR MEDICAL GENETICS DEPARTMENT

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Objective: Multiple Myeloma (MM) is an orphan disorder of end stage plasma cells with acquired genetic abnormalities of clinical importance not captured by conventional cytogenetic analysis because of the low proliferation of malignant plasma cells. Thus, interphase Fluorescence In Situ Hybridization (FISH), performed on sorted plasma cells detected abnormalities independently of a proliferative and infiltrative index. The purpose of this study was to explore, for the first time in our Medical Genetics department the molecular genetics features in a Tunisian patient with multiple myeloma. A 35-year-old Tunisian man, followed-up for MM since two years and received VTD chemotherapy protocol (bortézomib, thalidomide et dexaméthasone). Actually, as part of evaluation of his disease, and in the presence of infectious syndrome, the MM's relapse is suspected. Magnetic cell separation of PCs was performed using the Whole Blood CD138 MicroBeads, Whole Blood Column Kit, and the QuadroMACS Separation Unit (Miltenyi Biotec) according to the manufacturer's protocol. Slides were pretreated according to the manufacture's protocol. The FISH probes used in this study included IGH/FGFR3(4p16/ 14q32; DC.DF)/vysis, TP53/CEP 17(17p11.1-q11.1/17p13.1) FISH probe, Vysis. **Results:** Revealed the presence of three signals of IGH in 75% of nuclei and one signal of TP53 in 96% of nuclei. These results demonstrated the deletion of the short arm of chromosome 17 (del(17p)) and the absence of t(4;14). However, the presence of three signals of IGH indicated either the IGH amplification or the IGH rearrangement involving other partner chromosomes. These results were consistent with patient's relapse. The t(4;14) and del (17p) are high-risk markers associated with adverse prognosis. Patients with these genomic aberrations should be treated with targeted therapy. The detection of the 1q21 'gain could be considered in further studies because it is the most frequent structural abnormality, observed in 35% –40% of the patients with MM which is an independent poor prognostic factor.

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PP 27_ Case report

TREATMENT MANAGEMENT IN MULTIPLE MYELOMA WITH RENAL DISORDER

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Introduction: Multiple Myeloma (MM) is a plasma cell neoplasm characterized by the accumulation of monoclonal plasma cells in the bone marrow, leading to osteolytic lesions, anemia, infections, hypercalcemia, and kidney impairment. This review focuses on managing kidney disease in MM, particularly light chain cast nephropathy. **Case:** A 66-year-old male with progressive fatigue, dizziness, weight loss, and recurrent pneumonia was referred for anemia evaluation on 28.11.2024. Laboratory results showed:

- Hemoglobin: 5.4 g/dL, Hematocrit: 18.3%, Platelets: 56×10^3/uL
- Creatinine: 1.39 mg/dL, Calcium: 9.7 mg/dL, Total Protein: 9 g/L, Albumin: 2.9 g/L
- IgA: 4295 mg/dL, IgG: 141 mg/dL, IgM: < 5 mg/dL

Peripheral smear showed rouleaux formation, and protein electrophoresis revealed a gamma peak. Immunofixation detected IgA-lambda bands, with bone marrow biopsy confirming 70% plasma cell infiltration. The patient was started on VCD chemotherapy (bortezomib, cyclophosphamide, dexamethasone). Neutropenia worsened, requiring G-CSF support. Renal function improved, and zoledronic acid was given for widespread lytic lesions. Due to Febrile Neutropenia (FEN), treatment was switched to VRD (bortezomib, lenalidomide, dexamethasone). After four cycles, symptoms improved, and cytopenia's resolved. Although serum immunofixation remained positive, the patient achieved a Very Good Partial Response (VGPR). A follow-up bone marrow biopsy is planned after four more cycles, with Autologous Stem Cell Transplant (ASCT) scheduled if the response continues. **Conclusion:** Managing MM with renal impairment requires balancing efficacy and toxicity. A four-drug regimen (Dara-CyBorD or Isa-CyBorD) is preferred in fit patients with severe AKI, while a three-drug regimen (Dara-Vd) is recommended for frail patients. If daratumumab or isatuximab is unavailable, CyBorD is an alternative. Bortezomib, daratumumab, and isatuximab can be safely used in kidney dysfunction without dose adjustments. Lenalidomide is avoided in AKI unless refractory. In this case, VCD was chosen initially, and after renal improvement, VRD