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IgD Lambda Multiple Myeloma in a Paraplegic Female without Renal Involvement: A Case Report

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Abstract | **Case Report**

Background: IgD multiple myeloma is a rare and aggressive variant of multiple myeloma, accounting for less than 2% of cases. It typically presents in younger males and is often associated with renal dysfunction and extensive extraosseous involvement [1,2]. ***Case Presentation:*** We report a case of a 68-year-old paraplegic female patient presenting with chronic diffuse bone pain, pyramidal syndrome, and general deterioration. Laboratory workup revealed hypogammaglobulinemia. Immunofixation identified an IgD Lambda monoclonal band in serum and a corresponding Lambda band in urine. Bone marrow aspirate demonstrated 39% dystrophic plasma cells. Notably, renal function was preserved at diagnosis. ***Conclusion:*** This case highlights an unusual presentation of IgD Lambda multiple myeloma in an elderly female patient without initial renal involvement. Although the clinical presentation was severe, the absence of renal dysfunction at onset makes this case atypical and underscores the heterogeneity of IgD myeloma.

Keywords: IgD multiple myeloma, paraplegia, renal function, monoclonal gammopathy, Lambda light chain.

INTRODUCTION

Multiple myeloma (MM) is a clonal plasma cell disorder characterized by the production of monoclonal immunoglobulins or light chains. Among its subtypes, IgD multiple myeloma (IgD MM) is rare, representing less than 2% of cases [1,2]. It is generally associated with poor prognosis due to its aggressive clinical course, frequent renal involvement, and high incidence of light chain secretion [2,3].

IgD MM typically affects younger male patients and presents with extensive bone destruction, systemic symptoms, and Bence Jones proteinuria [3]. Here, we present an atypical case of IgD Lambda MM in an elderly paraplegic female with preserved renal function at diagnosis, which deviates from the usual clinical pattern described in the literature [4].

CASE REPORT

A 68-year-old female with no significant past medical history was admitted for evaluation of progressive diffuse bone pain, paraplegia, and marked general decline over several months.

Clinical findings:

On physical examination, the patient exhibited signs of pyramidal syndrome, marked asthenia, and tenderness on spinal palpation. Neurological evaluation confirmed a motor deficit consistent with thoracic spinal cord compression.

Laboratory investigations:

- Serum protein electrophoresis showed hypogammaglobulinemia.
- Immunofixation revealed a monoclonal IgD Lambda band in the serum and a Lambda light chain band in the urine.
- Bone marrow aspirate demonstrated 39% dystrophic plasma cells.
- Complete blood count revealed anemia (Hb: 8.2 g/dL), while calcium levels were elevated (corrected Ca: 2.85 mmol/L).
- Renal function was within normal limits (Creatinine: 78 µmol/L; eGFR > 60 mL/min).
- β2-microglobulin and LDH were mildly elevated.
- Spinal MRI revealed lytic lesions with vertebral collapse and signs of epidural involvement at T6-T8.

DIAGNOSIS:

IgD Lambda multiple myeloma with spinal cord compression but no initial renal impairment.

TREATMENT

The patient was started on VCD chemotherapy (Bortezomib, Cyclophosphamide, Dexamethasone), intravenous bisphosphonates, and supportive care. Neurosurgical evaluation concluded that decompressive surgery was not immediately indicated.

DISCUSSION

IgD MM is a rare and aggressive form of MM, typically affecting males in their 50s and characterized by rapid progression, frequent renal impairment, and systemic symptoms [1,2]. The diagnosis is often delayed due to the low serum concentration of IgD, which is not detected by standard electrophoresis and requires immunofixation [3].

Key features of IgD MM include:

- Predominant Lambda light chain secretion
- High incidence of Bence Jones proteinuria
- Frequent renal failure (up to 52% at diagnosis) due to light chain nephropathy
- Poorer prognosis compared to IgG or IgA myeloma subtypes

Our case contrasts with the typical profile in several ways:

- **Gender and age:** Elderly female patient rather than a younger male
- **Renal function:** Absence of renal failure at presentation
- **Neurological presentation:** Severe paraplegia due to spinal involvement, a less commonly reported feature in IgD MM [4].

In recent years, the use of novel agents such as proteasome inhibitors (e.g., bortezomib), immunomodulators, and autologous stem cell transplantation has improved outcomes in MM, including rare subtypes such as IgD. This case underlines the importance of including IgD MM in the differential diagnosis of paraproteinemic syndromes, even in atypical patient profiles.

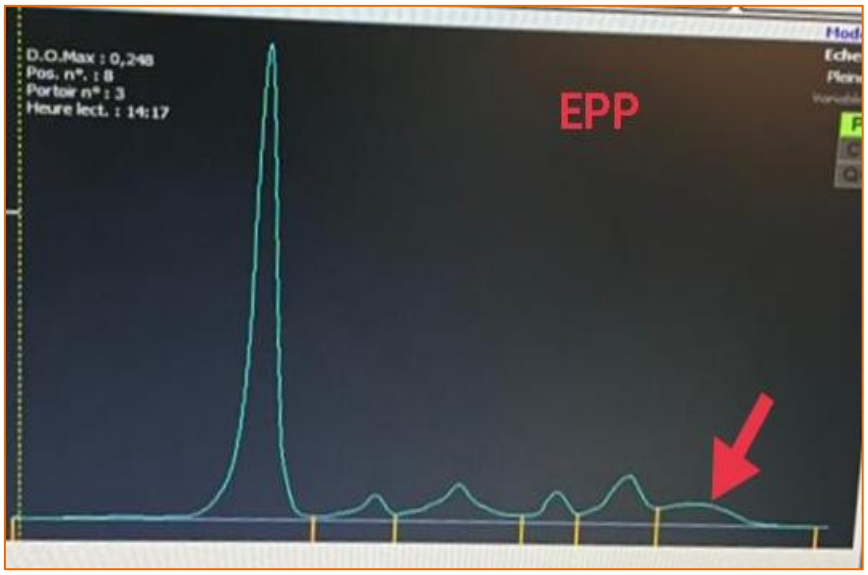

Figure 1: electrophoretic profile showing hypogammaglobulinemia

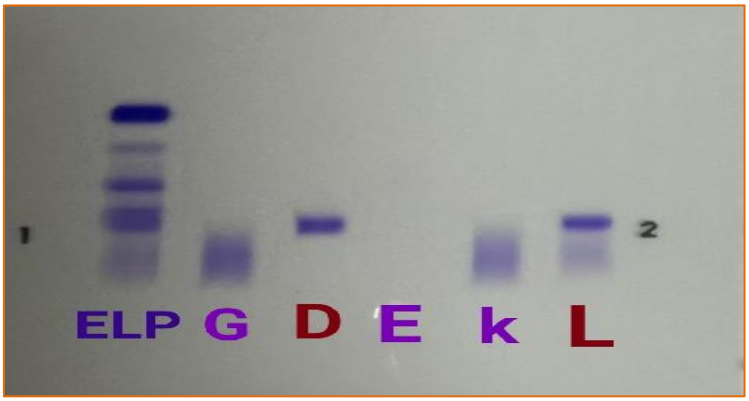

Figure 2: Immunofixation showing IgD Lambda gammopathy profile

CONCLUSION

This case report contributes to the limited literature on IgD Lambda multiple myeloma and emphasizes the clinical heterogeneity of the disease. The absence of renal involvement, the patient's gender, and the neurological presentation make this case both educational and unique. Early immunofixation remains essential for accurate diagnosis, and the availability of novel therapeutic agents improves prognosis in these otherwise severe forms of MM.

REFERENCES

1. Selene II, Jose JA, Khalil MJ, *et al*. Presentation patterns, diagnostic markers, management strategies, and outcomes of IgD multiple myeloma: a systematic review of literature. *Cureus*. 2019;11(2): e4011.
2. Benchekroun L, Ouzzif Z, Bouabdillah M, Jaouhar N, Aoufir F, Aoufi F, *et al*. Myélome multiple à immunoglobuline D. *Ann Biol Clin (Paris)*. 2011;69(5):581–7.
3. Djidjik R, *et al*. IgD multiple myeloma: Clinical, biological features and prognostic value of the serum free light chain assay. *Pathol Biol (Paris)*. 2015.
4. Chebbi W, Berriche O. Myélome à IgD kappa révélé par des lombosciatiques bilatérales. *Pan Afr Med J*. 2014; 18:314.