The 12th World Congress on
CONTROVERSIES IN MULTIPLE MYELOMA (COMy)

A SILENT MASS THAT SPEAKS FIRST: INTRACRANIAL PLASMACYTOMA AS THE INITIAL PRRESENTATION OF MULTIPLE MYELOMA IN ELDERLY WOMAN

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INTRODUCTION AND OBJECTIVES

Multiple myeloma is a malignant bone marrow disease that occurs predominantly in older adults. Plasmacytomas are rare extramedullary manifestations of plasma cell neoplasms. Intracranial involvement is uncommon and is often not included in the initial differential diagnosis.

To present a rare case where cerebral plasmacytoma was the first clinical sign leading to the diagnosis of Multiple Myeloma (MM), emphasizing the importance of neurological symptoms and imaging in elderly patients with general complaints.

CASE PRESENTATION

A 77-year-old female patient presented to the internal medicine emergency department after an episode of vomiting and loss of consciousness, accompanied by pallor, weakness, and a fracture of the lower third of the left humerus. For six months, she had been complaining of bone pain, dizziness, headache, difficulty concentrating, and balance disorders, and the appearance of "soft" formations on the forehead and back of the head.During the physical examination, a painless formation was identified in the occipital area. The patient was initially admitted to the Nephrology Service due to the acute renal failure she presented at the time of presentation to the emergency department, where a cerebral scan (CT) was performed, as well as myelogram and flow cytometry, and a clinical-biochemical balance.

RESULTS

Cranial CT showed a massive osteolytic lesion in the occipital and frontal bones, involving the cerebellar and frontal cerebral parts as well as soft tissues [Fig.1].

Laboratory tests revealed: Hb 6 g/dL, PLT 26,000/mm³, WBC 3500/mm³, acute renal failure, β2-microglobulin 34 mg/L, kappa 27,000 mg/dL, and IgG 5600 mg/dL.

Serial electrophoresis showed a monoclonal peak of the kappa type.

Bone marrow aspiration revealed 30% plasma cells with immunophenotypic profiles of CD38+, CD138+, CD56+, cytoplasmic kappa+, and CD45–, confirming the malignant clonal population.

After the diagnosis of multiple myeloma was established in the Nephrology Service, the patient was transferred to the Hematology Service, where treatment with the DARA-CyBorD regimen was initiated.

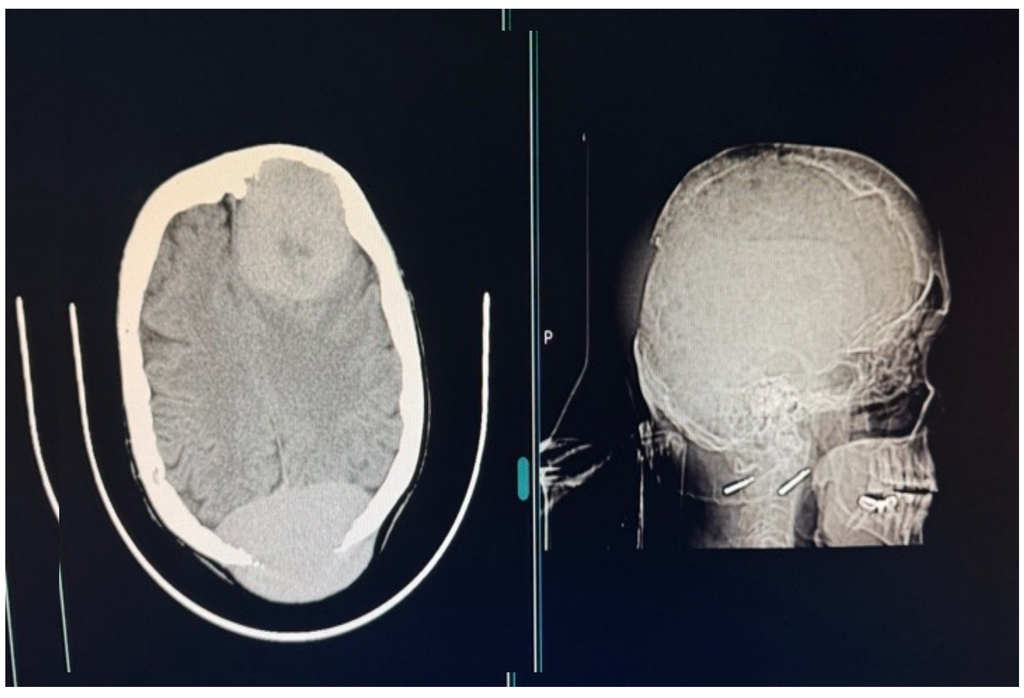

Fig.1: Cerebral and cerebellar extramedullary plasmacytoma with bone tissue destruction

DISCUSSION

Cerebral plasmacytoma is a rare extramedullary manifestation of MM, often overlooked at initial diagnosis. As highlighted by Ho et al. (2025), extramedullary MM has more aggressive biological characteristics and is associated with poorer response to standard therapy [1]. In our case, prolonged neurological symptoms led to the detection of an osteolytic mass in the occipital bone by brain CT, a finding similar to the case reported by Terada (2009) [2]. Imaging plays a central role in the evaluation of these lesions, as also described by Baffour et al. (2020), where CT helps to characterize the bone lesion, while MRI delves into the involvement of the cerebral parenchyma [3]. The diagnosis was confirmed by bone marrow aspiration and flow cytometry, which identified a monoclonal plasma cell population with a CD38+, CD138+, CD56+, cKappa+, CD45– phenotype, a profile typical of MM, as also highlighted by Boyle (2022) [4]. This case highlights the importance of interdisciplinary collaboration in cases with non-specific neurological presentation and the need for early hematological evaluation in the presence of unusual cranial lesions.

CONCLUSION

Cerebral plasmacytoma as an initial presentation of multiple myeloma is rare, but essential for timely diagnosis. Early recognition of neurological symptoms, brain imaging, and immunophenotypic analyses are key to effective disease management.

REFERENCES

1.Ho M, Paruzzo L, Minehart J, Nabar N, Noll JH, Luo T, Garfall A, Zanwar S. Extramedullary Multiple Myeloma: Challenges and Opportunities. Current Oncology. 2025; 32(3):182. https://doi.org/10.3390/curroncol32030182

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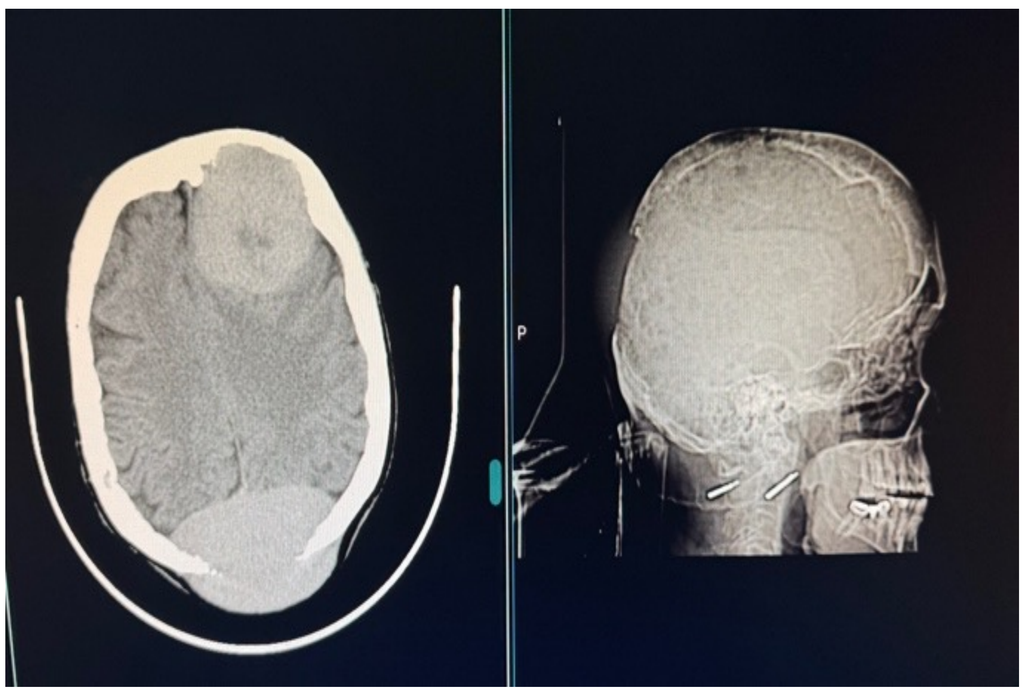

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