ABSTRACT

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# H3 K27M-mutant diffuse midline glioma with osseous metastases: A case report and a literature review.

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INTRODUCTION: Diffuse midline glioma (DMG) is a primary tumor of the central nervous system (CNS) with aggressive nature. It arises from midline structures in the brain and spinal cord. Recently, the presence of H3 K27M mutation is described in most cases. Extra-cranial osseous metastasis is rarely encountered.

CASE PRESENTATION: We present an interesting case of DMG with bone metastasis at presentation in a 19-year-old male. In addition, a literature review on similar cases is presented.

DISCUSSION: DMG mostly affects children and young adults. It has a broad spectrum of phenotypes, shows diffuse growth pattern, midline location, and is frequently H3 K27M-mutant. Radiotherapy remains the mainstay of treatment that might improve overall survival. Metastasis outside the CNS remains a rare occurrence, especially at presentation, and constitute a diagnostic challenge.

CONCLUSION: Bone is one of the most common sites for metastasis of primary CNS tumors, which would severely impact prognosis. Oncologists, radiologists, and pathologists should keep an index of suspicion when encountering bone metastasis in the presence of a CNS midline tumor, so that timely diagnosis and management can be rendered.

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