Monoblastic Sarcoma-A Rare Case Report of Myeloid Sarcoma Variant

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INTRODUCTION

Myeloid sarcoma, also known as chloroma, myeloblastoma or extramedullary myeloid tumor, is a rare manifestation, characterized by the proliferation of immature myeloid cells, myeloblasts/monoblasts occurring as one or more tumor at an extramedullary site. It is associated with disruption of normal architecture of tissue in which it is found.

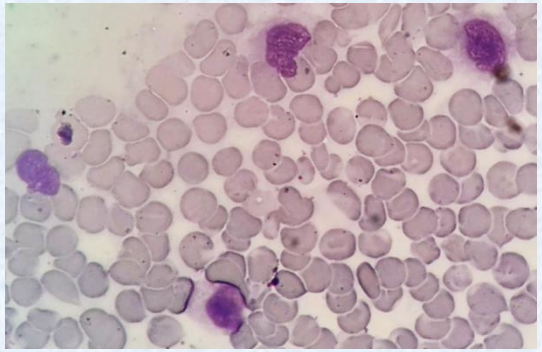
CASE REPORT

We report a rare case of primary monoblastic sarcoma in a 64 years old male patient presented with complaint of swelling over right side lower cervical region. He had no history of acute myeloid leukemia. CBC and PBS were within normal limit..

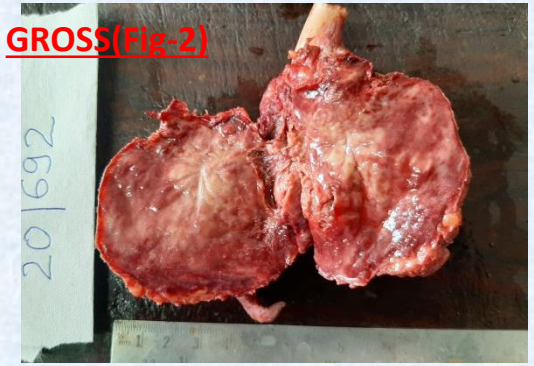
RESULT

On FNA cytology, the smear revealed low cellularity comprising of singly dispersed monomorphic cell population in hemorrhagic background. The cells had minimal pleomorphism, slightly indented or clefted nuclei, fine chromatin, occasionally prominent nucleoli and moderate basophilic cytoplasm with well-defined outline(Fig-1) differential diagnosis of myeloid sarcoma and malignant lymphoma was given. The swelling was excised and send for histopathological examination, show cells were medium to large in size with moderate eosinophilic cytoplasm, round to oval nuclei with fine stranded chromatin and conspicuous nucleoli in most of cells (Fig-3) which was diagnosed as monoblastic sarcoma, and confirmed on immunohistochemistry

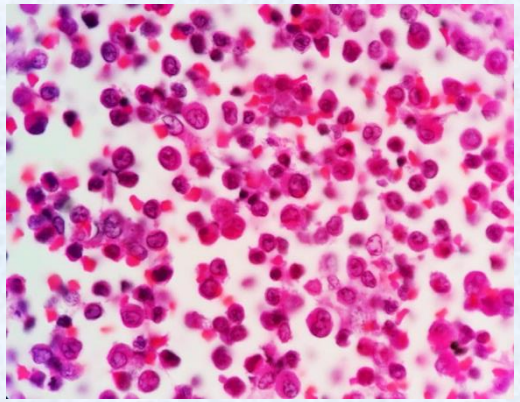
CYTOPATHOLOGY(Fig-1)



GROSS(Fig-2)



HISTOPATHOLOGY(Fig-3)



IMMUNOHISTOCHEMISTRY

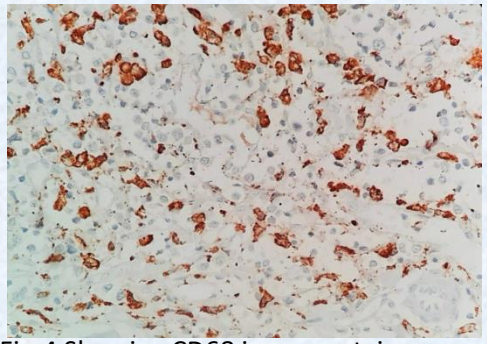


Fig-4 Showing CD68 immunostain demonstrating granular cytoplasmic

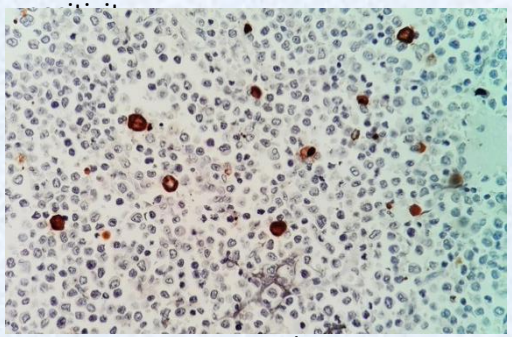
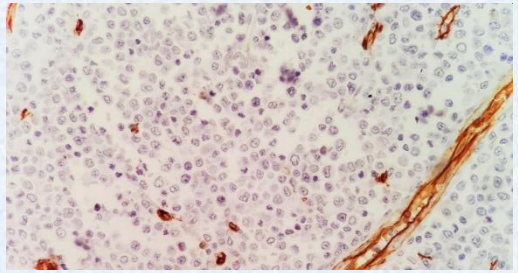


Fig-MPO immunostain demonstrating scattered positivity.



CD34 immunostain negative with positive blood vessel (internal control)

DISCUSSION

Myeloid sarcoma is a neoplasm present at any extramedullary sites and comprising of immature granulocytes, monocytes, or both. The neoplastic cells are large, with abundant eosinophilic cytoplasm, round or oval nuclei with dispersed chromatin and one or more prominent nucleoli and strongly positive for CD43, lysozyme, CD68, CD163, weakly for CD4, and negative for CD34. Prompt diagnosis and early induction of chemotherapy in cases of monoblastic sarcoma helps prevent the spread of disease to other organs and improves survival

CONCLUSION

Monoblastic sarcoma is a rare variant of myeloid sarcoma comprising of more than 80% monoblasts. Immunohistochemical study plays an essential role in obtaining a correct diagnosis of monoblastic sarcoma.

REFERENCE

Alpeshkumar K, Mitul M, Harsha P, Priti T, Nirmal L, Sonia P, Gautam M. Monoblastic sarcoma/Myeloid sarcoma of paraspinal region as acute paraparesis in aleukemic patient- A rare case report from western India. Gujarat Cancer Society Research Journal, 2016; 18(2): 38-40.