

Clinical Image

Malignancy induced haemophagocytosis of leukaemic blasts by macrophages and transformation into a multinucleated giant cells

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Haemophagocytosis is a dysregulated immune condition characterised by both inflammation and uncontrolled activation of macrophages and T-cells, which causes aberrant cytokine release, leading to cytokine storm [1] it can be primary or secondary, depending upon the etiology.

We present a case in a 23 years old female presented with complaints of spontaneous ecchymotic patches over legs & arms for 10 days, gum bleeding and menorrhagia. On evaluation no evidence of gum hyperplasia, lymphadenopathy and hepato-splenomegaly noted. Her investigations on admission showed pancytopenia picture. She was evaluated with bone marrow examination and flowcytometry. Her bone marrow aspirate depicted acute

myeloid leukemia in the background of myelodysplastic Syndrome showing a unique finding of Haemophagocytosis by erythroid cell of blast, lymphocytes and monocytes and its transformation into multinucleated giant cell, which is unique finding in this case. On Next Genome Sequencing, it was found to be associated with PTPN11 gene mutation on chromosome 12.

It is mandatory to note this finding as it helps in tailoring the line of management. Usually such patients have failure of induction therapy.

Our main aim is to identify this unique finding in cases of Acute Myeloid Leukemia, which has not been reported in the literature till date.

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Ethical Approval: Taken

Consent: Obtained

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References

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More Information

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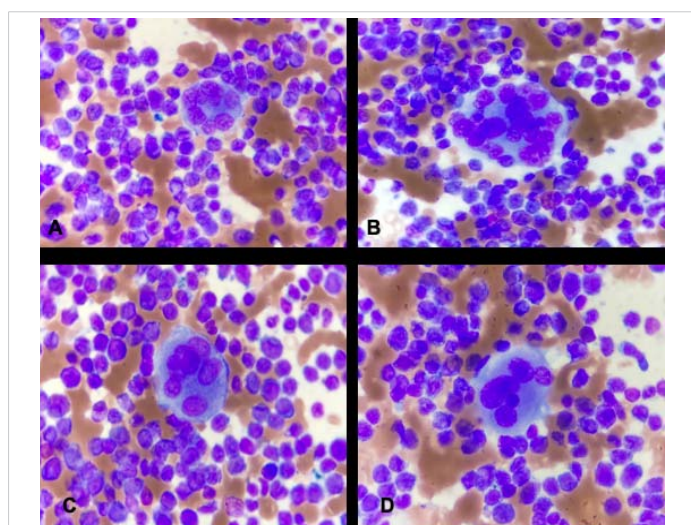
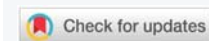


Figure 1: A-D: The microphotograph depicts Malignancy induced haemophagocytosis of leukaemic blasts by macrophages and transformation into a multinucleated giant cells.