

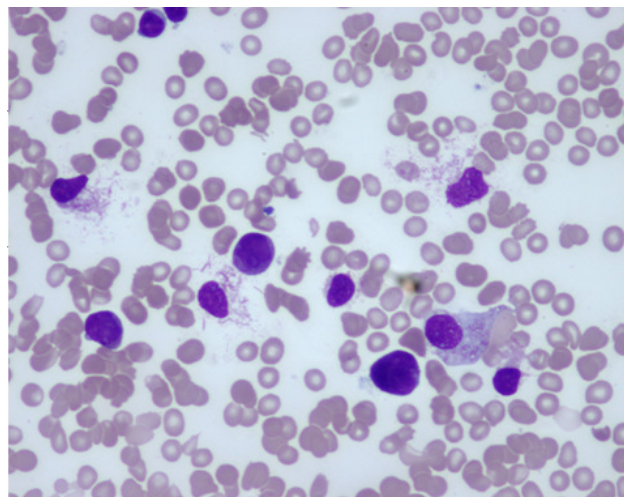
(Refer to page 51)

Answer: Spontaneous bilateral peri-orbital haematoma associated with acute promyelocytic leukemia

In this patient, the spontaneous bilateral peri-orbital haematoma could be due to severe thrombocytopenia. However the presence of abnormal promyelocytes in the peripheral blood smear (**Panel, darkly stained cells are promyelocytes**) is suggestive of acute promyelocytic leukemia (APL) which should be confirmed with a bone marrow biopsy, cytogenetic study for t(15;17) and molecular study for PML-RARa oncogene fusion.

Patients with APL, generally present with symptoms related to complications of pancytopenia (i.e. anaemia, neutropenia, and thrombocytopenia), including weakness and easy fatigability, infections of variable severity, and/or haemorrhagic findings such as gingival bleeding, ecchymoses, epistaxis or

menorrhagia. Combinations of these symptoms are common. Disseminated intravascular coagulation (DIC) is frequently present at diagnosis or occurs soon after the initiation of cytotoxic chemotherapy and is probably the cause of the haematoma in this patient. This complication constitutes a medical emergency, as left untreated, it can cause pulmonary or cerebrovascular haemorrhage in up to 40% of patients and a ten to 20% incidence of early haemorrhagic death.¹⁻³ In this patient, she had complications of periorbital haematoma and cerebrovascular haemorrhage. It is critical to start treatment with a differentiation agent (e.g., all-trans retinoic acid) without delay as soon as the diagnosis is suspected based upon morphologic criteria, and even before definitive cytogenetic or molecular confirmation of the diagnosis has been made. In this patient, the haematoma was resolved with treatment.



REFERENCES

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- 3:** Barbui T, Finazzi G, Falenga A. The impact of all-trans-retinoic acid on the coagulopathy of acute promyelocytic leukemia. *Blood* 1998; 91:3093-102.