

CASE 1994-1

Submitted by:

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Case reference number:

Clinical History:

26 year old male presented with severe left thigh pain. Radiographic studies showed numerous skeletal lytic lesions. A bone marrow aspirate and biopsy, Cytochemical and immunophenotyping studies were consistent with Acute Myelogenous Leukemia, Mo subtype. The patient was started on induction chemotherapy with Idarubicin and Ara-C. He tolerated chemotherapy well.

On day 7, patient had significant thrombocytopenia (14K), neutropenia (ANC .98), anemia (Hgb 8.0, Hct 24.2) and fever which was treated with Ceftazidime. On day 14 bone marrow aspirate and biopsy showed minimal cytoreduction and induction chemotherapy was reinstated with high dose Ara-C, Vincristine and Decadron.

The patient went home on weekend leave. On day 6 he developed mild shortness of breath and chest pain with nausea and vomiting. Same afternoon he started having decreased visual acuity and dizziness, and in the evening he became unresponsive with sluggishly reacting pupils and nystagmus. Head C.T. scan showed diffuse, multiple ring enhancing lesions. He developed focal, and subsequently, generalized seizures requiring intubation. He developed ventricular tachycardia with no palpable pulses or blood pressure, and died within 12 hours of the onset of his neurological symptoms

EXAMINATION OF THE BRAIN:

The brain weighed 1500 gms. fresh and 1575 gms. following fixation. There was diffuse subarachnoid hemorrhage bilaterally over the frontal and parietal lobes. A few areas of discrete grey-brown discoloration were present on the inferior surface of the temporal lobes. The cerebellar tonsils were prominent and the left cerebellar lobe was larger than the right. There were several punched out lesions on the external surfaces of both cerebellar lobes. Subarachnoid hemorrhage extended along the entire length of the spinal cord. Sectioning showed all lobes of the cerebrum and cerebellum, bilaterally to be studded with hemorrhagic necrotic lesions ranging in size from 0.4 x 0.4 cm. to 1.1 x 1.3 cm. Many of these lesions were associated with the subarachnoid. Multiple sections of the brain stem showed similar type lesions.

Material submitted:

H & E section of cerebrum

Points for discussion:

1. Diagnosis
2. Pathogenesis