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Central Nervous System (CNS) complications in leukemia and lymphoma can be divided in two broad categories viz. due to CNS disease and secondly, due to complications of the therapy. Rarely an unrelated or coincidental complication may be encountered. The aim is to characterize CNS complications and MRI findings observed in leukemia and lymphoma patients. A retrospective analysis of data of 558 leukemia and lymphoma patients registered over 7 years period at B J Wadia Hospital Mumbai. The total numbers of patients with CNS manifestation at the time of presentation, during therapy or follow-up were 59 (10%). Patients with primary involvement of CNS were 16/59 (15 with blasts in CSF and 1 patient with lymphoma had changes on MRI but CSF was negative for blasts), 23/59 had secondary involvement, 2/59 had CNS symptoms unrelated to leukemia and 19/59 had CNS leukemia during or after completion of therapy. 2 patients had isolated ophthalmic/orbital relapse. Clinical presentations were proptosis in 3/59 patients, headaches in 22/59 patients, seizures in 5/59 and encephalopathy in 11/59 patients. 19 patients were asymptomatic; all asymptomatic patients had blast in CSF at the time of diagnosis or relapse. 23 patients with secondary CNS involvement included 5 patients of sagittal sinus thrombosis, 2 viral encephalitis, 3 Methotrexate induced encephalitis, 6 in press, hemorrhage and extensive thrombosis in 1 APLM case, ocular tuberculosis, CNS granuloma, infarct, radiation induced secondary neoplasm, cytarabine induced encephalopathy and brain abscess in one case each. 2 patients who had CNS involvement unrelated to disease had neuro cysticercosis, one of them a case of AML presented with seizures 1 month after diagnosis, was not on therapy till then, the other presented after completion of all maintenance. Patients with secondary CNS involvement had typical findings on MRI like press in 6 patients, Thrombosis in 6, Infarct and brain abscess accounted for 1 each, MTX induced leuco-encephalopathy in 2 patients, meningioma in 1, multiple granuloma in 1 and encephalitis in 2 patients. The child with orbital TB, presented with proptosis and was initially thought to have relapse but correct diagnosis was based on histopathology report, JC virus was confirmed in CSF virology studies. It can be concluded that neurological complications may have varied presenting symptoms and imaging abnormalities. It is important to have appropriate inputs from clinicians regarding the drugs used and intensity of therapy received. Radiologist with these inputs helps in arriving at correct diagnosis. Most of the time correct diagnosis can be made based on clinical history and radiology findings. Histopathology or microbiologic diagnosis is required in some patients. Special considerations to tuberculosis and neuro cysticercosis should be kept in mind in developing countries. Treatment becomes challenging in these patients as the concomitant chemotherapy can be more toxic. Patients in our centre presented with ocular TB, CNS TB and AML with neuro cysticercosis have successfully completed therapy and are on regular follow-up without CNS complications.

Biography

Mudaliar has continued academic engagements by conducting workshops/seminars for post graduate medical professionals and contributing in medical journals. Her extensive work experience in renowned national as well as international centres has fine tuned her clinical judgement and communication skills especially with patients and their families. Currently she is working as a Consultant in Department of Hematology-Oncology at B J Wadia hospital for Children, Parel, Mumbai.

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