Leptomeningeal carcinomatosis in adult Medulloblastoma: a monoistitutional experience of 33 patients

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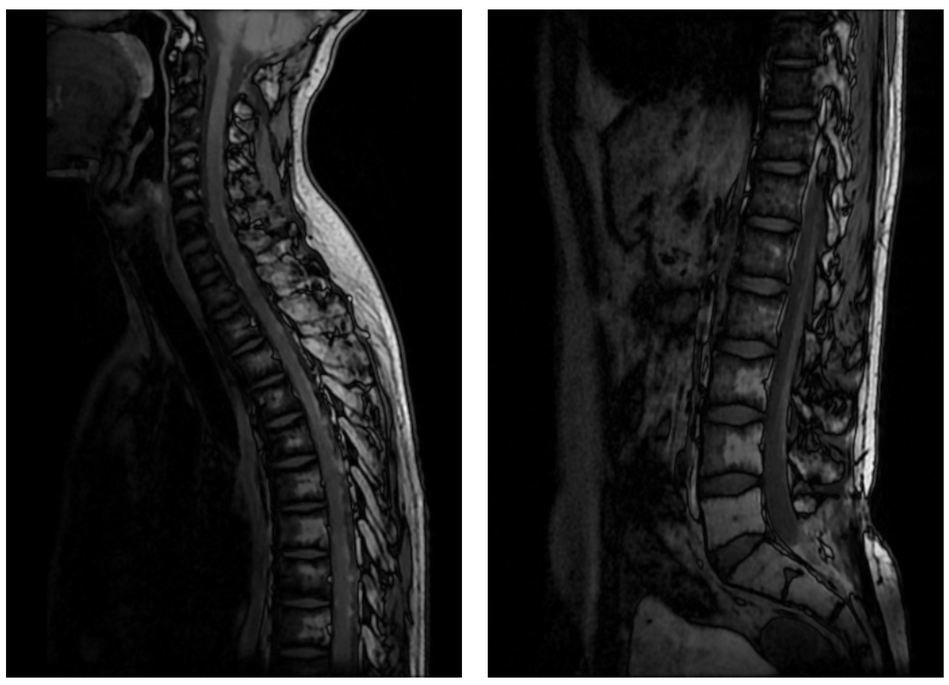
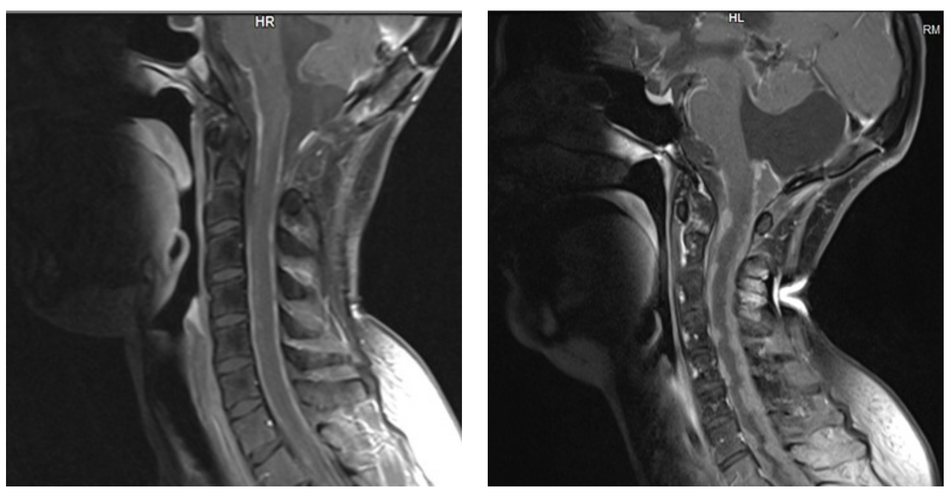
Objective

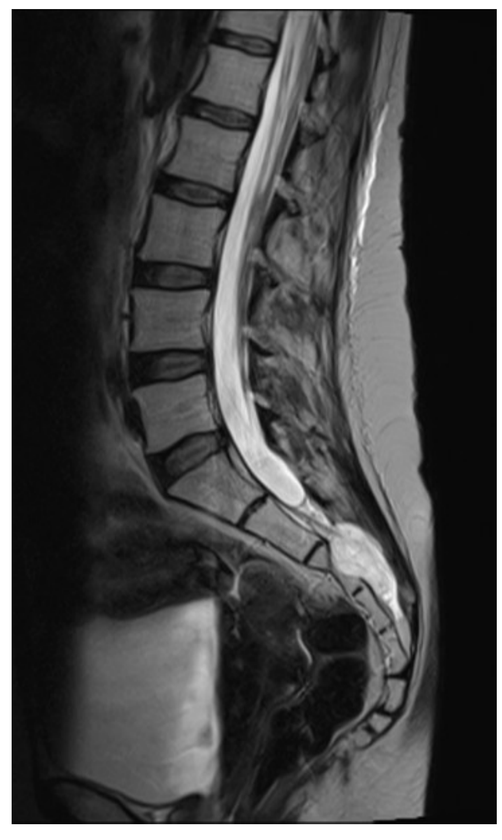
If in primitive brain tumors, autoptic meningeal involvement is a frequent event, less common is the clinical evidence. Clinical manifestations may be different and related to histology as well as the localization of lesion. Among primitive central nervous system tumors, medulloblastoma is recognized to be at high risk for dissemination with extremely rapid evolvement. To date the prognosis is poor with a median survival rate of 12 months. We present 33 medulloblastoma patients with leptomeningeal carcinomatosis followed by our Institution from 2000 to date, focusing on epidemiological, radiological, treatment data as well as survival data.



Patients and methods

In all patients, leptomeningeal carcinomatosis diagnosis was performed on the basis of MRI and cerebrospinal fluid analysis. In 90% of patients, brain and spinal cord radiotherapy with subsequent platinum and etoposide chemotherapy, were performed. At dissemination, patients with good performance status underwent intrathecal therapy; if performed, liposomal cytarabine (DepoCyte) was administered every two weeks for a month at total dose of 50 mg. Only responder patients were treated for additional three months as consolidation therapy. Other treatments included oral temozolomide, intrathecal methotrexate, and rechallenge with platinum and etoposide based chemotherapies.





Results and conclusion

Overall treatments were quite well tolerated. To date, 6/33 patients are alive. By comparing imaging with clinical results, intrathecal therapy has been shown to provide substantial benefit in patients with linear enhancement disease. On the contrary, nodular enhancement seems to have a negative prognostic significance.