

This term refers to meningitis associated with cancerous conditions. It occurs in about 5% of all patients ( [\[1\]](#) ) with cancer, and affects the entire neuraxis.

This type of meningitis carries a very poor prognosis: treatment is palliative with an expected median patient survival of 2 to 6 months. Kim and Glantz ( [\[2\]](#) ) noted:

“Currently, the diagnosis occurs generally after the onset of neurologic manifestations and heralds a rapidly fatal course for most patients. By the time symptoms appear, most tumors have disseminated widely within the CNS, due to cortical irritation, compression of nervous system structures, or obstruction of CSF flow”;

However, treatment of neoplastic meningitis may improve survival times.

Chamberlain et al. ( [\[3\]](#) ) looked at complications associated with intraventricular chemotherapy in patients with leptomeningeal metastases, arising from a variety of primary cancers. 52 out of 120 (43%) patients had aseptic/chemical meningitis, making this by far the most common complication.

New drugs such as intrathecal topotecan carry severe side effects including arachnoiditis. Blaney et al. in Texas ( [\[4\]](#) ) found

“Arachnoiditis, characterized by fever, nausea, vomiting, headache, and back pain, was the dose-limiting toxic effect in two of four patients enrolled at the 0.7 mg dose level.”

They are now looking at a Phase II trial in children with neoplastic meningitis.

Chamberlain ( [\[5\]](#) ) found that intra-cerebrospinal fluid alpha-interferon was associated with toxicity,

"manifested as transient chemical arachnoiditis (16 out of 22 patients; 60% of all treatment cycles)"

and concluded that it caused

"considerable toxicity at the dose and schedule used in the current study and, as a result, may prove difficult to administer."

As with leukaemia, advances in treatment may well significantly improve life expectancy in these patients. However, arachnoiditis as a long-term sequela must be borne in mind during follow-up.

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[\[1\]](#) Aparicio A, Chamberlain MC. *Curr Neurol Neurosci Rep* 2002 May; 2(3):225-35 Neoplastic meningitis.

[\[2\]](#) Kim L, Glantz MJ. *Curr Treat Options Oncol* 2001 Dec; 2(6):517-27 Neoplastic meningitis.

[\[3\]](#) Chamberlain MC, Kormanik PA, Barba D. *J Neurosurg* 1997 Nov; 87(5):694-9 Complications associated with intraventricular chemotherapy in patients with leptomeningeal metastases.

[\[4\]](#) Blaney SM, Heideman R, Berg S, Adamson P, Gillespie A, Geyer JR, Packer R, Matthay K, Jaeckle K, Cole D, Kuttesch N, Poplack DG, Balis FM. *J Clin Oncol* 2003 Jan 1; 21(1):143-7 Phase I clinical trial of intrathecal topotecan in patients with neoplastic meningitis.

[\[5\]](#) Chamberlain MC. *Cancer* 2002 May 15; 94(10):2675-80 A phase II trial of intra-cerebrospinal fluid alpha interferon in the treatment of neoplastic meningitis.