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[Intervention Review]

Chemotherapy versus best supportive care for extensive small cell lung cancer

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ABSTRACT

Background

Combination chemotherapy has been the mainstay of treatment for extensive stage small cell lung cancer (SCLC) over the last 25 years even though it only gives a short prolongation in median survival time. The main goal for these patients, if their survival prognosis is limited, should be adequate palliation with the aim of improving their quality of life.

Objectives

To evaluate the effectiveness of chemotherapy in extensive SCLC compared with best supportive care (BSC) or placebo treatment.

Search methods

Medline (1966-Jan 2003), Embase (1974-Jan 2003), Cancerlit (1993-Jan 2003) and the Cochrane Central Register of Controlled Trials (CENTRAL, Issue 4, 2002) were searched. In addition experts in the field were contacted to identify further studies not found by electronic searches.

Selection criteria

Randomised controlled trials in which any chemotherapy treatment was compared with a placebo group or best supportive care in patients with extensive stage SCLC.

Data collection and analysis

Data extraction and quality assessment were undertaken independently by two authors and disagreements were resolved by a third author. Additional information on the included studies was obtained from the author of the original studies.

Main results

Only two studies (the first published in 1977 and the second in 1982) met the inclusion criteria of the review. A total of 65 patients with extensive disease (33 in the first study and 32 in the second) were randomised to receive either placebo treatment or ifosfamide. In the second study a third arm of comparison included ifosfamide plus CCNU. Ifosfamide gave an extra 78.5 days survival (mean survival time) compared with the placebo group. Partial tumour response was greater with the active treatment. Toxicity was only seen in the

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chemotherapy group. Pooled analysis was not possible because only mean survival time was reported in both studies for patients with extensive disease.

Authors' conclusions

Chemotherapeutic treatment prolongs survival in comparison with placebo in patients with advanced SCLC. Nevertheless the impact of chemotherapy on quality of life and in patients with poor prognosis is unknown. Well-designed, controlled trials are needed to further evaluate the risks and benefits of different chemotherapeutic schedules in patients with advanced small cell lung cancer.

PLAIN LANGUAGE SUMMARY**Chemotherapy (anticancer drugs) prolongs survival in patients with advanced small cell lung cancer**

Small-cell lung cancer accounts for nearly a quarter of all new cases of lung cancer. This cancer is often diagnosed after it has spread to the brain, liver, bone or bone marrow and most patients die in the first year after diagnosis. This review found that chemotherapy (anticancer drugs) prolonged survival in patients with advanced small-cell lung cancer, compared with placebo or with best supportive care, although the effect of this treatment on quality of life is unknown. Further research is needed in patients with poor prognosis.