LUNG ALERT

Prophylactic cranial irradiation can reduce symptomatic brain metastasis in extensive SCLC

Survival rates for extensive small cell lung cancer (SCLC) have not improved dramatically in the past 3 years. Brain metastases are common in this disease and indicative of a poor prognosis. This study evaluated the effect of prophylactic cranial irradiation (PCI) on the incidence of symptomatic brain metastasis in extensive SCLC.

A multicentre, randomised trial was conducted on patients with histological or cytological confirmed SCLC with evidence of extension beyond the hemithorax. All patients included had responded to chemotherapy. Patients with history of previous radiotherapy to head or neck, corticosteroid use or previous cancer were excluded.

The primary endpoint was development of symptomatic brain metastasis and secondary endpoints included survival, quality of life, toxic effects and treatment costs. There was a statistically significant lower risk of symptomatic brain metastasis in the irradiation group compared with the control group. Symptomatic brain metastasis were observed in 24 of 143 in the irradiation group (16.8 %) and 59 of 143 in control group (41.3 %). The cumulative incidence of brain metastasis was much lower in the irradiation group than the control group at 6 and 12 months. Overall survival was also significantly higher in the irradiation group (median survival 6.7 months compared with 5.4 months for the control group).

This study shows a greater reduction in symptomatic brain metastasis in patients treated with PCI. The authors suggest PCI should be standard care in all patients with extensive SCLC who respond to chemotherapy.

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