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Effect of concomitant use of pentoxifylline and alpha-tocopherol with radiotherapy on the clinical outcome of patients with stage IIIB non-small cell lung cancer: a randomized prospective clinical trial.

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Source

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Abstract

We evaluated the effects of pentoxifylline (PTX) and alpha-tocopherol on the clinical outcome of 66 patients with stage IIIB non-small cell lung cancer in a randomized clinical trial. All patients received 46 Gy of external radiotherapy to the primary tumor and regional lymph nodes, with an additional 14-Gy dose to the primary tumor. Thirty-three of the 66 patients also received PTX (400 mg, three times daily) and alpha-tocopherol (300 mg, twice daily) during radiotherapy, followed by 400 mg of PTX and 300 mg of alpha-tocopherol daily for 3 mo after radiotherapy. The remaining 33 patients (control group) received radiotherapy only. After a mean follow-up time of 12 mo, 18 patients remained alive. During follow-up, there were local recurrences in 14 patients and distant metastases in 18 patients. In patients who received PXT and alpha-tocopherol, 1- and 2-yr overall survival rates were 55% and 30%, respectively, and median survival was 18 mo. In control patients, 1- and 2-yr overall survival rates were 40% and 14%, respectively, with a median survival of 10 mo. These differences were statistically significant ($p = 0.0175$). In patients who received PXT and alpha-tocopherol, progression-free survival rates for 1 and 2 yr were 48% and 23%, respectively; median survival was 12 mo. In the control group, the corresponding rates were 24% and 18%; median survival was 8 mo ($p = 0.0223$). We conclude that the use of PTX and alpha-tocopherol combined with radiotherapy offers a possible survival advantage in this patient population.

Comment in

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