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Treatment of intermediate- and high-grade non-Hodgkin's lymphoma using CEOP versus CNOP.

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Source

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Abstract

INTRODUCTION:

During the last few years epirubicin (E) and mitoxantrone (M) (Novantrone) have been used in the treatment of non-Hodgkin's lymphoma (NHL), because of their favorable principal profile. In particular, M has less severe non-hematological toxicity.

PATIENTS AND METHODS:

A randomized multicenter phase III study was conducted in order to compare the efficacy and toxicity of CEOP and CNOP in intermediate- and high-grade NHL. CEOP (arm A) consisted of cyclophosphamide 1000mg m(-2), vincristine 2mg, E 70mg m(-2) on day 1 and prednisone 60mg on days 1-7. The CNOP regimen (arm B) was identical to CEOP except for replacement of E by M at a dose of 12mg m(-2). Randomization was stratified according to stages I-IV. From September 1993 to March 1999, 249 patients registered for the trial. Patient characteristics were equally distributed in the two arms, except for age and International Prognostic Index (IPI) groups.

RESULTS:

There were no significant differences between the two groups in the rates of complete (CR) and partial response (PR). The overall response rate was 78% in arm A (57% CR, 21% PR) and 82% in arm B (60% CR, 22% PR). With a median follow-up time of 47.3 months, the median survival was not reached in arm A, while it was 39.5 months in arm B (P=0.09). Three-year survival rates were 62.5% for CEOP and 51.5% for CNOP. There was no significant difference regarding the time to progression between the two groups (29.7 vs. 18.5 months); furthermore the median duration of CRs was 71.6 and 49 months for CEOP and CNOP, respectively (P=0.07). The therapeutic efficacies of both regimens were equivalent among the four IPI groups. More alopecia was observed in arm A. WHO grade >2 neutropenia was more frequent in arm B. Supportive treatment with G-CSF was given to 22 and 24 patients, respectively.

CONCLUSION:

There were no significant differences in terms of overall response rates, overall survival and time to progression between CEOP and CNOP in the treatment of intermediate- and high-grade NHL. Patients with low or low intermediate IPI risk treated with either CEOP or CNOP showed significantly better survival, response rates and time to progression than those with high intermediate or high IPI risk. Therefore, new improved therapeutic approaches should be developed for the treatment of high IPI risk patients.