

## **MOPPEBVCAD chemotherapy with limited and conditioned radiotherapy in advanced Hodgkin's lymphoma: 10-year results, late toxicity, and second tumors.**

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**PURPOSE:** MOPPEBVCAD (mechlorethamine, vincristine, procarbazine, prednisone, epidoxirubicin, bleomycin, vinblastine, lomustine, doxorubicin, and vindesine) chemotherapy with limited radiotherapy was devised in 1987 to reduce late toxicity and second tumor incidence while trying to improve effectiveness through increases of dose intensity and dose density. Late results, toxicity, and second tumor incidence were reviewed in all the patients treated. **EXPERIMENTAL DESIGN:** The drugs of three previous alternating regimens [CAD (lomustine, melphalan, and vindesine), MOPP (mechlorethamine, vincristine, procarbazine, and prednisone), and ABV (doxorubicin, bleomycin, and vinblastine)] were intensified and hybridized, the cumulative dose of mechlorethamine was lowered, and irradiation was delivered to no more than two sites either bulky or partially responding to chemotherapy. **RESULTS:** A total of 307 previously untreated advanced-stage patients underwent MOPPEBVCAD chemotherapy. Radiotherapy was delivered to 118 of 307 patients (38%). Remission was complete in 290 patients (94%). With a median follow-up of 114 months, 10-year overall, disease-free, and failure-free survival rates were 79%, 84%, and 71%, respectively. Forty-two patients relapsed and 60 died. The causes of death were Hodgkin's lymphoma in 36 patients, second neoplasms in 12, cardiorespiratory diseases in 4, pulmonary diseases in 2, and unknown in 6. Sixteen second tumors (of which nine were myelodysplasia and/or acute leukemia) were diagnosed in all. Outside this series of 307 patients, MOPPEBVCAD obtained complete responses in 12 of 15 relapsed and 9 of 9 refractory patients who had previously been treated with other regimens. **CONCLUSIONS:** Clinical response and long-term results are very satisfactory, whereas the second tumor incidence was lower than would have been expected with MOPP analogues. Given its response/late toxicity balance, MOPPEBVCAD does not undermine the leading role of ABVD as first-line regimen but can be indicated as a very effective second-line conventional therapy.