MAINTENANCE RITUXIMAB PROLONGS PFS

Although chemotherapy improves response in patients with indolent lymphoma, no chemotherapy regimen has provided sustained survival advantages, and many patients develop myelosuppression, which limits the dose at which chemotherapy can be used. Maintenance interferon therapy improved progression-free survival (PFS) rates but this regimen has not been widely adopted owing to poor tolerance, the need for continuous administration and limited benefit. In 1997, the anti-CD20 monoclonal antibody, rituximab, was approved for use in patients with relapsed follicular lymphoma and indolent lymphoma. The randomized phase III E1496 study by Hochster *et al.* has shown that in patients treated with chemotherapy, maintenance rituximab can significantly prolong PFS.

A total of 311 patients (282 with follicular lymphoma) with grade 3 or 4 lymphoma who had received cyclophosphamide, vincristine and prednisone chemotherapy were randomly assigned to receive maintenance rituximab or observation. Median PFS was 4.3 years after rituximab therapy compared with only 1.3 years in the observation arm. At 3 years, the PFS was 68% for those in the rituximab arm and 33% in the observation arm. Toxic effects were minimal and grade 3 infection and neutropenia were similar in both arms. There was also a nonsignificant trend for an improved overall survival in patients who received rituximab maintenance therapy.

"This study provides the first phase III data in untreated indolent lymphoma that maintenance rituximab after chemotherapy significantly prolongs PFS, to a far greater extent than achieved by any prior strategy, and with minimal toxicity," the authors conclude.

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Original article Hochster, H. *et al.* Maintenance rituximab after cyclophosphamide, vincristine, and prednisone prolongs progression-free survival in advanced indolent lymphoma: results of the randomized phase III ECOG1496 study. *J. Clin. Oncol.* **27**, 1607–1614 (2009).