

HAEMATOLOGICAL CANCER BETTER SURVIVAL, TOXICITY NO WORSE

Diagnosis of acute myeloid leukaemia (AML) occurs mainly in individuals over the age of 65. Treatment advances have improved survival outcomes for younger patients but therapy options for older patients remain limited. This lack of progress is largely owing to the reduced ability of this patient population to withstand intensive chemotherapy. One approach to circumvent the problem of toxicity is the use of antibody-directed therapy that can help target chemotherapy to the tumour, thereby sparing patients the toxicity of conventional chemotherapy. Gemtuzumab ozogamicin (GO), a humanized anti-CD33 antibody that is linked to a potent cytotoxic agent, showed promise as a first-line treatment in a pilot study in younger patients with AML.

The encouraging results seen in younger patients in this trial prompted Alan Burnett and his colleagues to test this regimen in older patients with untreated AML. As Burnett describes, “the results of GO in younger patients led us to conduct the AML16 trial, which is one of the biggest trials undertaken in patients older than 60. This is the first improvement we have seen in this age group for 20 years.”

The researchers randomly assigned over 1,100 patients to assess the addition of GO to standard daunorubicin-based induction chemotherapy for patients with AML or high-risk myelodysplastic syndrome aged 60 years or older. The primary end point of the study was overall survival. After a median follow-up period of 30 months, patients receiving GO had a significantly lower rate of relapse (68% versus 76%) and an improved 3-year overall survival (25% versus 20%) compared with those patients treated with standard chemotherapy. Burnett summarizes the key findings of the study, “this trial not only showed improved survival but with no additional toxicity.”

The results of this trial offer hope for older patients with AML. Burnett comments on his team's plans for further research in this area based on these findings, and the challenges that lie ahead: “our strategy is to adopt GO as a standard of care for older patients in our future trials; however, this could be problematic since this drug is not licensed.”

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Original article Burnett, A. K. *et al.* Addition of gemtuzumab ozogamicin to induction chemotherapy improves survival in older patients with acute myeloid leukemia. *J. Clin. Oncol.* doi:10.1200/JCO.2012.42.2964