

HAEMATOLOGICAL CANCER

The importance of being stringent

Thanks to the growing number of treatment options for multiple myeloma, some patients can achieve a sustained complete response, which can last beyond 10 years if, for instance, they have received high-dose therapy in combination with autologous stem-cell transplantation (ASCT). But what do we consider a complete response? And what effect does it have on the overall survival of patients with multiple myeloma? Shaji Kumar and colleagues in the Mayo Clinic have provided some answers to these questions.

As Kumar explains: “The conventional way of defining complete response in myeloma included only the serum and protein electrophoresis and bone marrow examination.” With new assays—such as immunophenotyping and assays that measure the tumour secretion of serum free light chain—new aspects of the tumour burden became assessable. These new ways to evaluate response urged the International Myeloma Working Group to redefine the response criteria, creating a more-rigorous category: stringent complete response (sCR), which takes into account all these new parameters. “However, the clinical utility and prognostic significance of stringent complete response has not been validated so far,” notes Kumar.

The authors sought to investigate the impact of achieving stringent complete response in 445 patients who had achieved only a conventional complete response after ASCT, and identified those who met the criteria for sCR ($n = 109$, 24%). In these patients, the median overall survival from the time of transplantation was not reached, whereas in those patients who achieved conventional complete response (cCR, $n = 37$) the median overall survival was 81 months. Patients with near CR (nCR,



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$n = 91$) had an overall survival of 60 months.

Kumar explains these results, “we were able to show that achievement of sCR did lead to a better outcome or, in other words, identified a group of patients from within the cCR group who did better than the rest”. In fact, 5-year overall survival rates were 80%, 53%, and 47% for sCR, cCR, and nCR, respectively. The median time to progression from the time the patients received ASCT was 50 months in patients who had achieved a sCR compared with 20 months and 19 months, in patients achieving cCR and nCR respectively. With the validation of the sCR, the authors believe that clinical trials reporting on outcomes of patients with myeloma should categorize patients achieving stringent CR separately.

The results from the Mayo Clinic show that sCR after ASCT is achievable and that it can act as a surrogate end point for improved survival. Finally, it also “demonstrates the importance of continuing to add new methodologies to identify patients with deeper and deeper responses (that is, minimal residual disease),” concludes Kumar.

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