
BCR BREAKPOINT LOCATION AND PROGNOSIS IN CML

To the Editor:

I would like to comment upon the recent article by Mills et al.1 This paper indicates that chronic myelogenous leukemia (CML) patients with a bcr breakpoint located in the 3′ portion of the bcr have a shortened chronic phase in comparison to patients with a more 5′ breakpoint. This data, along with a previous report by Benn et al.,2 corroborate our earlier study3 showing that patients with a 3′-bcr breakpoint were at a higher risk for blast crisis, and extends those findings by quantifying the relative lengths of the chronic phase for the different groups of patients. The authors suggest that these findings contradict our earlier report because they do not demonstrate a correlation between a 3′ breakpoint and a blast crisis. We feel that the new findings are completely consistent with our original observations.

The distribution that we originally reported, with the majority of blast crisis patients having 3′ breakpoints, is completely consistent with the later reports indicating that the length of the chronic phase is shorter in these patients. If the breakpoints are distributed approximately at random between the 5′ and 3′ regions of the bcr, then a shorter chronic phase for the patients with a 3′ breakpoint would result in a greater number of 3′-patients being in blast crisis at any single point in time that the population of patients was sampled. Assuming that the survival in blast crisis is equal in the 3′ and 5′ groups (which we do not actually know), then the number of patients with 3′ breakpoints who are in blast crisis at a single point in time will be greater than the number of 5′-breakpoint patients in blast crisis at the same point. The ability of Mills et al to follow their patients longitudinally and observe the length of the chronic phase has contributed important new data to our understanding of prognostic factors in CML. At the same time, we do not feel that enough data has been generated to warrant the blanket application of bcr breakpoint location as a prognostic factor in making decisions regarding bone marrow transplantation. A recent report4 suggests that patients with 3′ breakpoints may also be at greater risk of relapse following bone marrow transplantation. Additional prospective studies should provide information which will determine the best way to interpret breakpoint location in the context of other factors used in making treatment decisions.

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REFERENCES
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