

Umbilical Cord Blood Beats HLA-Mismatched Unrelated Donor Cells in Stem Cell Transplant

For patients with minimal residual disease who undergo a stem cell transplant, overall survival is better for those who receive umbilical cord blood than for those who receive human leukocyte antigen (HLA)-mismatched cells from an unrelated donor, according to a retrospective study. The study also found a trend among patients with minimal residual disease toward better overall survival with cord blood than with HLA-matched cells from an unrelated donor.

For the study, which appeared in the September 8 issue of the *New England Journal of Medicine*, Dr Filippo Milano and colleagues identified 582 patients with acute leukemia or myelodysplastic syndrome who received stem cell transplant using cells from an umbilical cord blood donor (140 patients), an HLA-matched unrelated donor (344 patients), or an HLA-mismatched unrelated donor (98 patients). Donors were considered HLA matched if all 10 HLA values matched, and HLA mismatched if 9 of 10 HLA values matched.

Among patients who had minimal residual disease, the risk of death was significantly higher in the HLA-mismatched group than in the cord blood group (hazard ratio [HR], 2.92; 95% CI, 1.52-5.63; $P=.0001$) and trended toward being higher in the HLA-matched group than in the cord blood group (HR, 1.69; 95% CI, 0.94-3.02; $P=.08$). The risk of relapse among these patients also was significantly higher in both unrelated donor groups than in the cord blood group.

Among patients who did not have minimal residual disease, there were trends toward worse overall survival and relapse rates in the unrelated donor groups vs the cord blood group, but the differences were not statistically significant.

The majority of patients in need of an allogeneic stem cell transplant—approximately 70%—do not have an HLA-identical sibling and therefore need an alternative. The authors pointed out that the ability to use umbilical cord blood for stem cell transplant “is particularly important for patients from nonwhite racial and ethnic minority groups, because it can be difficult to find an HLA-matched unrelated donor for such patients.” The use of cord blood permits greater HLA disparity and the ability to find suitable donors for nearly all patients.

Active Surveillance, Surgery, and Radiotherapy All Good Options in Localized Prostate Cancer

Mortality rates are equally low for men with localized prostate cancer whether they receive active surveillance, surgery, or radiotherapy, according to a new randomized trial. More cases of disease progression and metastases occur with active surveillance, however.

For the trial, Dr Freddie C. Hamdy and colleagues randomly assigned 1643 patients in the United Kingdom with localized prostate cancer to receive active surveillance (545 patients), radical prostatectomy (553 patients), or external-beam radiation plus androgen-deprivation therapy (545 patients). Results appeared online on September 14 in the *New England Journal of Medicine*.

After a median of 10 years of follow-up, the rate of prostate cancer-specific mortality was not significantly different among the 3 groups, at 1.5 deaths per 1000 person-years in the active surveillance group (95% CI, 0.7-3.0), 0.9 deaths per 1000 person-years in the surgery group (95% CI, 0.4-2.2), and 0.7 deaths per 1000 person-years in the radiotherapy group (95% CI, 0.3-2.0; $P=.48$ for the overall comparison). There also was no significant difference among the groups in the overall mortality rate. Metastases were more common in the active surveillance group than in the surgery or radiation group, and the rate of disease progression was higher.

In a companion publication in the same issue, Dr Jenny L. Donovan and colleagues looked at patient-reported outcomes among the same men. Patients completed questionnaires before diagnosis, at 6 and 12 months after randomization, and every 12 months thereafter.

The researchers found that surgery had the largest negative effect on sexual function and urinary continence. Radiotherapy also affected sexual function, especially at 6 months, but had little effect on urinary incontinence. Patients in the active surveillance group experienced a gradual decline in sexual and urinary function. Radiotherapy was the only treatment that affected bowel function, with the greatest impact seen at 6 months. Anxiety, depression, and quality of life were not significantly different among the groups.

In a related editorial, Dr Anthony V. D’Amico concluded that “men with low-risk or intermediate-risk prostate cancer should feel free to select a treatment approach using the data on health-related quality of life and without fear of possibly selecting a less effective cancer therapy.”