Loss of mismatched HLA in leukemia after stem-cell transplantation

Transplantation of hematopoietic stem cells from partially matched family donors is a promising therapy for patients who have a hematologic cancer and are at high risk for relapse. The donor T-cell infusions associated with such transplantation can promote post-transplantation immune reconstitution and control residual disease. After transplantation of haploidentical hematopoietic stem cells and infusion of donor T cells, leukemic cells can escape from the donor's antileukemic T cells through the loss of the mismatched HLA haplotype. This event leads to relapse.

REFRENCES

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Micrometastases or isolated tumor cells and the outcome of breast cancer

Isolated tumor cells or micrometastases in regional lymph nodes were associated with a reduced 5-year rate of disease-free survival among women with favorable early-stage breast cancer who did not receive adjuvant therapy. In patients with isolated tumor cells or micrometastases who received adjuvant therapy, disease-free survival was improved.

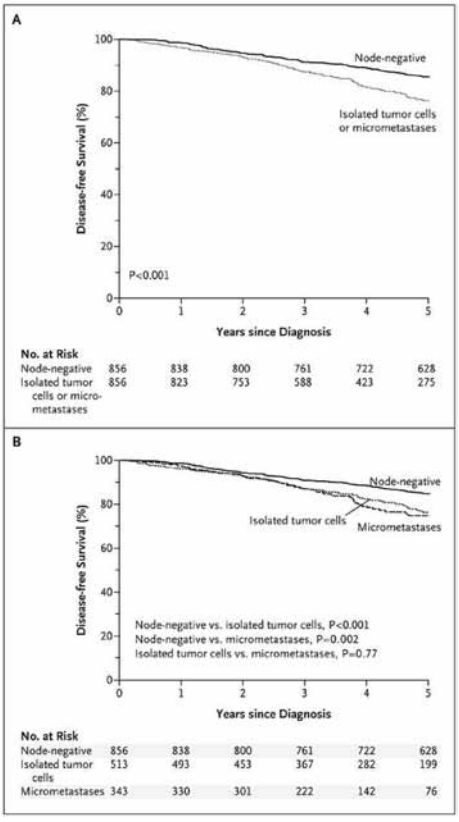

Figure 1. Disease-free survival among patients with early breast cancer with or without isolated tumor cells or micrometastases who did not receive systemic adjuvant therapy. Panel A shows disease-free survival among patients with node-negative disease and among patients with isolated tumor cells or micrometastases. Panel B shows disease-free survival among patients with node-negative disease, patients with isolated tumor cells, and patients with micrometastases.

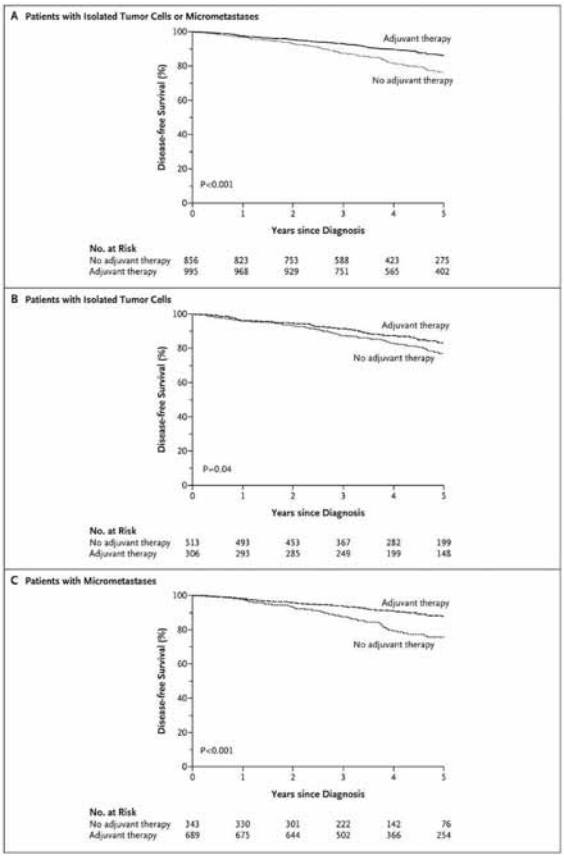

Figure 2. Disease-free survival among patients with early breast cancer and isolated tumor cells or micrometastases who received systemic adjuvant therapy and those who did not.

Panel A shows disease-free survival among all patients with isolated tumor cells or micrometastases, Panel B shows disease-free survival among patients with isolated tumor cells, and Panel C shows disease-free survival among patients with micrometastases.

REFERENCE

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Ocreotide LAR prolongs progression free survival in metastatic well-differentiated neuroendocrine tumors

Somatostain analogs are indicated for symptom control in patients with gastroenterohepatic neuroendocrine tumors (NET). The ability of somatostatin analogs, including ocreotide LAR (Sandostatin LAR, Novartis), to control the growth of well-differentiated NETs was a matter of debate. Rinke and colleagues from PROMID group performed double-blind, placebo-controlled, phase III B clinical trial where patients with untreated, metastatic, midgut NETs was randomly assigned to placebo or ocreotide LAR 30mg in monthly intervals until tumor progression or death. The primary endpoint was time to tumor progression. Eighty-five patients were included. Median time to tumor progression in the ocreotide LAR group and placebo groups was 14.3 vs. 6 months respectively (P=0.000072). After six months of treatment stable disease was observed in 66.7% of patients in the ocreotide LAR group and 37.2% in the placebo arm.

One of the most important observations is that functionally and inactive tumors responded similarly. This study shows that ocreotide LAR could be a new weapon against metastatic NET, a disease without many therapeutic options.

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Lazar Popović

The First Serbian-French Oncology Congress

The first Serbian-French Oncology Congress was held in Novi Sad, 10-11, September 2009. The congress was organized in cooperation of Oncology Institute of Vojvodina, Oncology Service Tenon Hospital Paris and AROME (Association of Radiotherapy and Oncology in Mediterranean Area, www.aromecancer.org) group. This congress was organized as a result of two years of intensive cooperation with Prof. Jean-Pierre Lotz (Tenon Hospital Paris) and medical doctors from Oncology Institute of Vojvodina.

The manifestation was opened by his Excellency Mr. Jean-Fransois Terral, the French ambassador, Dr. Atila Cengeri, the president of Health Secretariat of Autonomous Province of Vojvodina, Prof. Dr. Jean-Pierre Lotz and Prof. Dr. Darjana Jovanovic. There were more than 130 participants.

The topic of the meeting was "Early Breast Cancer." Congress lasted for two days. On the first day AROME group presented their work, Professor Yazid Belkacemi and Prof Jean-Pierre Lotz gave the lectures about hormone and radiotherapy in early breast cancer setting. The second day was divided in four sessions. The first session was about epidemiology, risk factors and diagnostics of breast cancer. The second part was about local treatment-surgery and radiotherapy, including news from reconstructive surgery after breast cancer. The third session was about systemic treatment in adjuvant therapy of breast cancer. Chemo-, hormone- and target therapy were the main topics. Two presentations covered two hot topics nowadays: triple negative breast cancer and breast cancer under 35 years of age. The lecturers from the last session tried to give some standards in the treatment and follow up of patients in early breast cancer setting. After the congress, our Institute made a new contact with Prof. Dr. Yazid Belkacemi who invited our oncologists to organize a scientific board as a member of the AROME group. We plan to organize the next congress on 16-18 September 2010. The main topic will be "Colorectal cancer."

Lazar Popović

The Nobel Prize in Physiology or Medicine 2009

Maintenance of chromosomes by telomeres and the enzyme telomerase

The 2009 Nobel Prize in Physiology or Medicine is awarded to Drs. Elizabeth H. Blackburn, Jack W. Szostak and Carol W. Greider for their discovery of how chromosomes are protected by telomeres and the enzyme telomerase. They solved a longstanding fundamental problem in biology; how can the ends of chromosomes be maintained and spared from erosion or rearrangement during repeated cellular divisions? By ingenious genetic experiments they demonstrated that chromosomal termini have an evolutionarily conserved structure and function. Subsequently, meticulous biochemical studies revealed the existence of a previously predicted enzyme, named telomerase, responsible for synthesis of chromosomal DNA ends, with the novel feature of dependence on an intrinsic RNA template. Deficiency of telomerase results in a gradual shortening of telomere repeats upon successive cell divisions, limiting viability and ending with cell death in a process called replicative senescence. In humans, mutations in genes encoding components of the telomerase complex cause hereditary disease characterized by cancer predisposition and defects in stem cell renewal and tissue maintenance. Being able to proliferate indefinitely most cancer cells maintain telomeres via increased telomerase activity. The discovery of telomerase has deeply influenced biomedical research and led to the development of cancer therapies presently under evaluation.

Taken from
http://nobelprize.org/nobel_prizes/medicine/laureates/2009/adv.pdf

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