Cytological intra-operative study of surgical margins and sentinel nodes in breast pathology

Alvaro Ibarra V
Clinicas Condes, Chile

The intraoperative biopsy is one of the more important, difficult and stressing challenge for the pathologist requires of experience, knowledge of clinical medicine, capacity to take fast decisions under pressure and good judgement. The immediate cytological study may complement and, in a great number of cases, replace the frozen sections. We will show our experience in the interpretation of intraoperative cytological study made at the same time with frozen biopsies, or replacing them. We also will show the excellent performance of the cytological study during the work of the interventionist's radiologists, at first in the categorization of the sufficiency or insufficiency of the specimens, or early diagnosis orientation that permits to make, complementary studies like microorganisms cultures, flow cytometry and molecular biology probes.

aibarra@clinicalascondes.cl

Decidua mesenchymal stem cells have high affinity and engraft into mammary tumors affecting tumor development and growth, increased survival and quality of life and down-regulated angiogenesis cytokines

Ana I Flores
Research Institute Hospital 12 de Octubre, Spain

Mesenchymal stem cells have affinity and engraft into tumors affecting their biology and growth. We have shown that Decidua Mesenchymal Stem Cells (DMSCs) significantly migrate in vitro and in vivo using a preclinical model of mammary tumors induced by N-nitroso-N-methylurea (NMU). In vivo, DMSCs intravenously administered migrate and engraft into NMU-induced tumors slowing down the growth of primary tumors and the development of new tumors. In addition, we analyze the effect of intra-tumor administration of DMSCs on the evolution of tumors, the overall survival of the animals and the potential mechanisms involved in these effects. A single dose of DMSCs injected into tumors has also an important effect on their evolution and progression of the tumors when compared to both, vehicle-injected and normal human dermal fibroblasts-injected rats. Interestingly, a single injected dose of DMSCs injected directly into the tumor has a similar initial outcome over the tumor size as consecutive doses of cells injected intravenously during five weeks. The effect of DMSCs in the survival of NMU-rats was remarkable. DMSCs significantly improve overall survival and quality of life of NMU-rats.

Angiogenesis is an important process in the progression of cancer. We evaluated the levels of nine cytokines involved in angiogenesis. The results showed that, in plasma and tissue homogenate, all cytokines decreased in DMSCs-injected with respect to vehicle-injected rats. We conclude that DMSCs effects could be mediated, at least in part, through the modulation of angiogenesis cytokines produced by tumors.

anaisabel.flores@salud.madrid.org