

CORRIGENDUM

Allogeneic, not autologous, CTLs generated from formalin-fixed tumor section

Induction of human autologous cytotoxic T lymphocytes on formalin-fixed and paraffin-embedded tumor sections

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In our article, "Induction of human autologous cytotoxic T lymphocytes on formalin-fixed and paraffin-embedded tumor sections," we described the generation of cytotoxic T lymphocytes (CTLs) in an autologous system which should have been derived from a gastric cancer patient (N.K.). Further investigation of the MHC class I-antigenic peptide complex has revealed that the CTLs that we generated from both fresh and fixed tissue were not "autologous" but are in fact "allogeneic" to the target tumor cell line GT3TKB. HLA-typing of these cells showed that the CTLs were HLA-A1101/A0206, whereas the tumor was HLA-A2402.

This correction can be explained by an unfortunate and regrettable coincidence. During the period when we took samples from ascites and blood from N.K. (October 8–December 28, 1993), there was another inpatient with exactly the same, and quite unusual, family name, of the same sex (male) and age (53) and presenting with the same syndrome with ascites. Unfortunately, samples from these two patients were evidently mixed up.

These events, however, do not otherwise affect the results or conclusion described in our article with the exception of the following points. First, the word "autologous" should be replaced with "allogeneic." It is, however, interesting to note that we have recently seen two cases of genuine autologous CTL generation on formalin-fixed paraffin-embedded sections (manuscript in preparation). Its conclusions are the same as those described in our earlier article. Second, the strong killing activities of CTLs shown in Fig. 1c should be considered to be less strong. We have shown in a separate paper1 that the autologous CTLs against brain tumor killed 82% of their target at the effector-target ratio of 1.67 for 48 hours. In Fig. 1c, CTLs were incubated for only 24 hours and shown to kill nearly 100% of the target. Finally, discussion of Fig. 2 should be altered to reflect the observation that the normal tissue part of the fixed tissue section did not stimulate growth of the CTLs. (We assume that the normal tissue retained a far smaller amount of MHC class I molecules than the tumor tissue part.)

The distinction between autologous and allogeneic is very important, particularly when considering a clinical application of the generated CTLs. Infusion of allogeneic CTLs is likely to induce an undesirable graft-versus-host disease and have no therapeutic effect on the tumor.

Tsurushima, H. et al. Induction of human autologous cytotoxic T lymphocytes against minced tissues of glioblastoma multiforme. J. Neurosurg. 84, 258–263 (1996).