

Autologous T Cell Therapy for Hepatocellular Carcinoma

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In Korea, Hepatocellular carcinoma (HCC) accounts for the third highest mortality rate among malignancies. Although surgery is the current predominant treatment, the cure rate is still very low and the 5 year survival rate is usually below 15-30%. These findings indicate that early treatment of HCC is an urgent and important issue.

Among lots of effector cells for cancer treatment, cytokine-induced killer (CIK) cells are shown to be a heterogeneous population, and the major population expresses both the T cell marker CD3 and the NK cell marker CD56. Also, CIK cells have potent cytolytic activity and exhibits non major histocompatibility complex(MHC) restricted lysis of target tumor cells.

Our products, Immuncell-LC which is derived from peripheral blood mononuclear cells and cultured under well defined culture conditions for 2-3 week, has characteristics bearing cytotoxic T cells(CTL) and CIK cells. We have recently reported that Immuncell-LC could suppress the growth of a variety of solid tumors including HCC tumor in animals or ex vivo effectively. Moreover, many reports showed that CIK treatment for HCC is effective and safe. Now, we are under Phase III clinical trial to evaluate efficacy and safety of Immuncell-LC for HCC patients undergone curative hepatic resection.