

posters

P – 0004 THE EVALUATION OF CELLULAR AND HUMORAL IMMUNITY CHARACTERISTICS IN GASTROINTESTINAL AND HEPATOCELLULAR CANCERS

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Introduction: Gastrointestinal cancers (GI Ca) are a global health problem leading to high morbidity and mortality all over the world. Human organism presents a well organised defense mechanism against cancer cells by humoral and cellular immune system. Nowadays, cancer immunotherapy is an essential and promising research field of modern immunology. In this study, we aimed to evaluate the characteristics of the humoral and cellular immune systems in gastrointestinal and hepatocellular cancers (HCC) patients.

Methods: Cellular and humoral immune parameters (CD3, CD4, CD8, CD16 / CD56 and CD 19 lymphocytes respectively) were investigated in the peripheral blood samples of 71 gastric Ca, 50 pancreatic Ca, 27 colorectal Ca, 50 HCC patients and of 30 healthy persons as control group by flow cytometry method. One way Anova and post hoc Dunnett tests were used to compare mean lymphocyte values of cancer groups with the control group. Significance level is determined as p: 0.05.

Results: CD3 and CD4 lymphocyte levels were not significantly different in all cancer groups compared to the control group (Table-1). CD8 lymphocyte levels were

significantly increased in pancreatic and colorectal cancer groups (p < 0.05) whereas CD19 lymphocytes were significantly lower in the same groups (p < 0.01-0.05). Natural killer (CD16 / CD56) lymphocytes were significantly higher in gastric Ca, colorectal Ca and HCC patients compared to the control group (p < 0.01-0.05).

Table-1: Immune lymphocyte parameters in GI Ca and HCC patients

IMMUNE PARAMETERS	Gastric Ca (Mean ± SD)	Pancreatic Ca (Mean ± SD)	Colorectal Ca (Mean ± SD)	HCC (Mean ± SD)	Control (Mean ± SD)
CD3+ lymphocytes (%)	68.03 ± 13.89	74.06 ± 12.35	75.09 ± 9.74	69.94±11.10	71.65 ± 8.59
CD4+ lymphocytes (%)	40.71 ± 10.67	30.44 ± 13.33	43.72 ± 14.02	38.20± 13.53	43.03 ± 8.88
CD8+ lymphocytes (%)	26.79 ± 10.94	^a 26.91 ± 14.11	^a 31.33 ± 11.81	25.83 ± 12.00	23.50 ± 7.88
CD19+ lymphocytes (%)	10.18 ± 7.35	^a 8.37 ± 4.44	^b 6.78 ± 3.51	12.64 ± 10.15	12.82±5.89
NK(CD16/56) lymphocytes (%)	^b 14.67 ±10.33	13.30 ± 7.23	^b 17.92 ± 9.73	^a 14.72±9.49	8.39 ± 5.46

^a p<0.05, ^b p<0.01

Conclusion: Cellular immunity is not weakened, even activated in the course of gastrointestinal carcinogenesis possibly related to malign stimulation. Interestingly, we observed the decline of the humoral immunity in gastrointestinal cancers. Strengthening humoral immune system by humoral immune methods (specific monoclonal antibodies etc.) must be considered as an adjunct to the cellular immune therapies (dendritic vaccines etc.).