• Establishment of a Lymphoma Animal Model in Mice and Flowcytometric Analysis and Confirmation

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Background: Lymphoma is considered as one of the main malignancies in the world.in order to control and manage of this disease, some extensive researches have been performed. In order to develop of new remedies, it seems that using animal models is crucial. The main purpose of our study was establishment and confirmation of an animal model of lymphoma in Balb/c mice. Materials and Methods: 20 Balb/c mice devided into control and test groups. $5_{\times}10^{6}$lymphomatic BCL-1 cells was injected through tail vein in model group. In this group 5 mice were killed 2 weeks after BCL-1 injection and 5 remained mice were killed after 4 weeks. Then changes of spleen, peripheral blood, lymph node and liver was investigated in these groups. We investigated affliction of mice with lymphoma by flowcytometric technique (using IgM an CD5 markers). Results: There was a statistical difference in the regard of spleen index between control and test groups; as in injected group ,specially in 4 weeks group, spleen index was greater than controls ($p<0.05$). Percentage of $IgM^{+}CD5^{+}$ cells in spleen of injected groups, particularly in4 weeks group, was greater than control group($p<0.05$). In 4 weeks group, percentage of lymphocytes in peripheral blood had statistical difference as compared with 2 weeks and control groups ($p<0.05$). And there was not any hystological change in lymph nodes and liver. Conclusion: According to considerable increase of cells which were positive for IgM and CD5 markers, and the increase of spleen index in injected mice, we can conclude that cancerous cells deployed in animals and were proliferating.
Keywords: Lymphoma, animal model, BCL-1, flow cytometry, spleen.