

**STUDIES ON TUMOR-ASSOCIATED MACROPHAGES IN HUMAN BREAST
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Tumor infiltrating leukocytes are significant parameters in evaluating the immune status of body defence response against tumor cells. Macrophages are known to play an important role in immune response against tumors. In this research, we studied the tumor associated macrophages (TAM) in 17 patients who suffered from breast cancer. Thirteen of these patients had invasive ductal carcinoma, two invasive lobular carcinoma, one intraductal carcinoma and one atypical medullary carcinoma. In intra-tumor studies it was found that infiltration of CD45⁺ cells (leukocytes) were 17.13% of tumor cell suspensions (16.4% for invasive ductal carcinoma). Macrophages with CD45⁺/CD14⁺ phenotype were 2.45% of tumor cell suspensions. These cells were 25.87% of infiltrated leukocytes (CD45⁺ cells). We also used CD16 and HLA-DR markers for recognizing activated macrophages. Macrophages with CD16⁺/CD14⁺ phenotype were 52% and macrophages with HLA-DR⁺/CD14⁺ phenotype were 1.48% of tumor cell suspensions. Also CD16⁺/CD14⁺ cell was 15.77% and HLA-DR⁺/CD14⁺ cells was 13.81%. We did not find a significant correlation between infiltration of macrophages with patient age or tumor size.

**EXPRESSION OF CROSS REACTIVE IDIOTYPES (CRI) IN LEUKEMIC B
LYMPHOCYTES FROM IRANIAN PATIENTS WITH CHRONIC LYMPHOCYTIC
LEUKEMIA**

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Chronic lymphocytic leukemia is a chronic lymphoproliferative disease characterized by monoclonal proliferation and accumulation of relatively mature appearing lymphocytes in peripheral blood. The leukemic lymphocytes are predominantly of B cell origin, though rare cases of T-CLL are also observed. CLL is the most common leukemia in western population, but is extremely rare in the orient and also in Iran. Therefore, racial and/or environmental factors may operate in etiology of this disease. Previous studies on western population have shown the expression of a restricted set of immunoglobulin variable region heavy (VH) and light (VL) in this disease. In this study peripheral blood B lymphocytes from 31 Iranian patients with B-CLL were examined for the expression of cross reactive idiotypes (CRI) associated with VH1 (G8 & G6), VH3 (D12 & B6), VH4 (LC1 & 9G4), VH6 (JE6), Vk3a (6B6.6) and Vk3b (17-109) gene products, using a panel of monoclonal anti-CRI and anti-subgroup antibodies. Membrane associated and secreted immunoglobulins were analysed by indirect rosette formation immunofluorescence and enzyme-linked immunosorbent assays. Of the K expressing cases 43% (6/14) belonged to k3 subgroup of which 28% (4/14) expressed the CRI recognized by 17-109 & 7% (1/14) expressed the CRI recognized by 6B6.6 monoclonal antibodies (MAb). CRI recognized by MAb G8 was expressed on 13% (4/31) of which only one sample was G6+. Of the two D12+ (6%) samples only one was B6+ and VH4-associated C were found in 19% (6/31) of the samples of which 2 expressed the CRI recognized by MAb LC1 and 4 were 9G4. The CRI associated with VH6 was not expressed by any of the samples tested. The results suggest that there is a difference in CRI expression between Iranian CLL patients and those from the west. This may be a reflection of the genetic differences between the two populations