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Total and Lipid-Bound Sialic Acid Levels in Actinic Keratosis and Basal Cell Carcinoma

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**Abstract:** Malignant cells have more sialic acid in their cell membrane than normal cells. Many studies have shown that mean values of total sialic acid (TSA) or lipid-bound sialic acid (LSA) were higher in patients with cancer than in normal subjects. Sialic acid levels correlate with stage of disease, tumor burden, degree of metastasis and recurrence of disease. The aim of the present study was to determine the plasma TSA, LSA, total protein (TP) and TSA/TP values in basal cell carcinoma (BCC) and evaluate if they are sensitive markers for malignancy. Plasma TSA and LSA were measured according to the method described by Katopodis and co-workers and TP on an autoanalyser in 16 healthy controls, 13 pathologic controls (actinic keratosis: AK) and 12 patients with BCC. Data analysis indicated a significant increase in TSA ( $P<0.0001$ ) and TSA/TP ( $P<0.0001$ ) values in the BCC group compared with the healthy controls. There was a significant increase in TSA ( $P<0.001$ ) and TSA/TP ( $P<0.0001$ ) values in AK (Pathologic controls) when compared with the healthy ones. When AK the and BCC groups were compared, no differences between TSA, LSA, TP and SA/TP values were observed. No significant difference was observed between the groups in terms of LSA values. The results indicate that TSA and TSA/TP along with other clinical and histopatological criteria may be valuable in establishing diagnosis of BCC.

**Key Words:** Total sialic acid (TSA), Lipid-bound sialic acid (LSA), Actinic keratosis (AK), Basal cell carcinoma (BCC).

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