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## Serum cancer antigen 15.3 concentrations in patients with betathalassemia minor compared to those with cancer and healthy individuals

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**Background:** High serum level of cancer antigen 15.3 (CA15.3) has been reported in some malignant and non-malignant conditions including thalassemia major which could have been resulted from ineffective erythropoiesis. We aimed to evaluate the serum level of CA15.3 in carriers of beta-thalassemia by comparing them with cancer patients and healthy individuals.

**Methods:** This cross-sectional study was done from February to December 2011 in Southern Iran. Participants consisted of 32 subjects with beta-thalassemia minor, 49 with cancer and 25 healthy individuals. The serum levels of CA15.3 were measured and compared in different groups.

**Results:** The serum levels of CA 15.3 in all participants were in the normal range ( $<35$  U/mL). Also it did not significantly differ among various groups of the participants ( $p=0.723$ ). Age was not significantly correlated with the serum level of CA 15.3 ( $r=0.039$ ,  $p=0.702$ ). The most frequent cancer in the group of patients with malignancies was hematologic malignancies (96%) with the highest frequency for acute lymphoblastic leukemia (37 patients). Frequency of thalassemia minor in patients with cancer was 11 (22.4%).

**Conclusion:** No correlation was found between CA 15.3 serum level with beta-thalassemia minor or with childhood malignancies. Compared to general population, a high proportion of beta-thalassemia minor was observed in patients with cancer in our study. Future prospective studies are needed to evaluate the relationship between cancer and beta-thalassemia minor accurately.

### Biography

Mahdi Shahriari is currently working as an Associate Professor in Department of Paediatrics in Shiraz University of Medical Sciences, Iran since 1994. He has published many articles in reputed National & International Journals. His area of expertise include Medicine, Oncology, Hematology, Pediatric Hematology, Pediatric Oncology, Hemophilia, Thalassemia & Cord Blood Stem Cell Transplantation.

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