Frequency and management of venous thrombosis in adult acute leukemia patients at a tertiary care hospital of Pakistan

M Shahzad Sarwar and M Usman Shaikh
Aga Khan University Hospital, Pakistan

Introduction: Solid tumors are well associated with thromboembolic complications but the incidence of thrombosis is not widely studied in patients with acute leukemia and their management which is a great challenge. However this may be obscured by the significant morbidity and mortality due to other complications such as bleeding and infections. No established guidelines are present to treat these difficult patients. Case-controlled studies of patients with cancer revealed a fourfold increase in thromboembolic occurrence in acute leukemia with about the same rate in acute myelogenous leukemia (AML) and in acute lymphocytic leukemia (ALL). Among patients with acute leukemia, thrombosis has the highest incidence in acute promyelocytic leukemia (APL). Of interest, increased thromboembolic events take place even prior to the diagnosis of acute leukemia, similar to the situation seen in solid tumors, indicating that a prothrombotic state is present even at the earliest phase of leukemia. The use of central venous catheter and chemotherapeutic agents such as L-asparaginase and other medicine used in the treatment of hematological malignancies particularly steroids may play an important thrombogenic role.

Aims & Objectives: To determine the frequency of venous thrombosis and treatment strategy in patients with acute leukemia at a tertiary care Hospital of Pakistan.

Material & Methods: Retrospective, observational study of case charts of hospitalized patients with diagnosed case of acute leukemia at Department of Oncology, Aga Khan University Hospital Karachi during the 18 months period (January 2014 to June 2015). Data was retrieved by using ICD 9 coding for acute leukemia patients. Investigations were obtained from electronic medical record system. Finally data was analyzed for frequencies and percentages by using SPSS version 19.

Results: Total of 107 patients presented during the study period. Among them 76 were males and 31 were females with median age ranges from 18 to 60 years. These patients were stratified into 2 major groups according to type of leukemia. 63.5% patients were with Acute myeloid leukemia in which 4.7% patient developed venous thrombosis among them highest in APML 22.2% while 36.4% patients were with acute lymphocytic leukemia (ALL) in which 2.5% of patients developed venous thrombosis. Three patients were treated successfully with LMWH during their consolidation phase of chemotherapy.

Conclusion: Venous thrombosis in acute leukemia is not uncommon which can lead to fatal results if left untreated. Anticoagulation with intermittent use of LMWH for 3-6 months with close monitoring of platelet counts would be the appropriate option for treatment.

Biography

M Shahzad Sarwar is currently working as a Chief Resident at Clinical Hematology Sub-Department in Department of Oncology at Aga Khan University, Pakistan. His research interests reflect in his wide range of publications in various national and international journals. His international experience includes various programs, contributions and participation in different countries for diverse fields of study.

shahzadsajjad99@gmail.com