

COMPARATIVE ANALYSIS OF ENOXAPARIN VERSUS RIVAROXABAN IN THE TREATMENT OF CANCER ASSOCIATED VENOTHROMBOEMBOLISM: EXPERIENCE FROM A TERTIARY CARE CANCER CENTER

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We conducted a retrospective review of comparison between the efficacy and safety profile of enoxaparin versus rivaroxaban in the treatment of venothromboembolism (VTE) in patients with cancer. 150 patients were included in the study that received therapeutic anticoagulation with either enoxaparin or rivaroxaban after developing a symptomatic DVT or PE. Baseline patient characteristics and laboratory values were assessed in each arm. Primary efficacy outcome was measured by radiographically confirmed VTE recurrence at different intervals. Primary safety outcome was measured by presence of major and minor bleeding using the ISTH scale. Our results showed that there was no statistically significant difference between the incidence of VTE recurrence at 6 months between the Enoxaparin and Rivaroxaban arm (10% vs 14.2%, $p=0.42$). Presence of RV strain on echocardiogram and albumin level $< 4\text{g/dl}$ was independently associated with the risk of VTE recurrence in either arm, ($p=0.001$ and 0.03 respectively). Historically significant risk factors for VTE in cancer patients such as high platelet count, high leukocyte count, low hemoglobin level, high risk gastrointestinal, genitourinary and lung cancers were not found to be independently significantly associated with the risk of VTE recurrence. Primary safety outcome analysis also showed no statistically significant difference in major (11.2% vs 11.4%) and minor (15% vs 10%) bleeding between enoxaparin versus rivaroxaban arm respectively, ($p=0.65$). We conclude that there was no significant difference seen between the efficacy and safety profile of enoxaparin and rivaroxaban in our cancer patient population and low albumin level and RV strain should be further assessed in prospective studies.