Direct Oral Anticoagulants for Treatment of Thrombophilia

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Venous thromboembolism, comprising of deep vein thrombosis (DVT) and pulmonary embolism (PE), occurs approximately in 1 out of every 1000 American individuals. About two-thirds of episodes manifest as DVT and one-third as PE (with or without DVT). Thrombophilias comprise of acquired or genetically inherited conditions that enhance the risks of developing blood clots and can manifest as a DVT or PE. The major outcomes of venous thromboembolism are death, recurrence of blood clots, post-thrombotic symptoms, and bleeding due to anticoagulation. Anticoagulants, also known as blood thinners, are used to treat venous thromboembolism of which the main two groups are vitamin K antagonists (VKAs) and direct oral anticoagulants (DOACs). DOACs were approved by the National Food and Drug Administration in 2010 as an alternative anticoagulant, but studies in patients with thrombophilia using DOACs have not been sufficiently conducted—hence why the following study was conducted. The data in the present study was extracted using pre-designed case report forms and Powerchart, which is the Emory University Hospital and Winship Cancer Institute patient database. 49 patients were examined for thrombophilia from 2015, which was the most recent year of compiled thrombophilia data in Powerchart. After reviewing patient data, one-tailed t-tests for statistical significance were used, and it was concluded that there was no statistically significant difference in any of the measured variables, implying that DOACs may be as effective as VKAs for patients with thrombophilia.