Oral Anticoagulants for Prophylaxis of Deep Vein Thrombosis in Lower Limb Surgeries: The Indian Perspective

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Abstract

Background: DVT is a fatal complication in patients undergoing lower limb surgeries. Not much evidence is provided in Indian literature regarding the incidence of DVT and ideal prophylaxis for the same. Oral Anticoagulants are now commonly used for chemoprophylaxis against DVT. Our study is to identify the role of Oral Anticoagulants for prophylaxis against DVT in lower limb orthopaedics surgeries.

Material and method: The present study is a prospective study for the role of oral anticoagulants in prophylaxis against DVT in patients with lower limb surgeries carried out over a period of two years. Total of 110 patients were selected based on inclusion and exclusion criteria. Randomization was done by simple randomization technique and patients were divided into two groups of 55 patients each. Group 1 (case) received Dabigatran Eteixilate (150mg) (oral anticoagulant) whereas group 2 (control) didn’t receive any prophylaxis following which Color Doppler was performed on all patients.

Result: Overall incidence of Deep Vein Thrombosis in our study group was found to be 23.6%, of which incidence of DVT in case group was 16.36% compared to control group in which incidence of DVT was found to be 30.9%, hence statistical significant difference (p value<0.05) of incidence was found in both groups. Duration of surgery and patient’s age were two most significant risk factors associated with the occurrence of DVT.

Conclusion: Deep Vein Thrombosis is relatively less common in Indian patients compared to the western population but recent data shows that there is need of use anticoagulants in Indian population due to increasing life expectancy and sedentary lifestyles and Oral Anticoagulants are now a safe and effective method for prophylaxis against DVT.

Keywords: Deep vein thrombosis, Prophylaxis, Oral Anticoagulants, lower limb orthopedic surgery.

Introduction

The term thrombosis refers to the formation of a blood clot within a blood vessel that either partially or completely blocks it. When this process occurs within the deep veins, it is referred to as Deep Vein Thrombosis (DVT). The incidence of post-operative deep vein thrombosis within the unprotected patient population ranges between 45% to 80% in age group of 18yrs to 90yrs and about 1.2% of these develop fatal pulmonary thromboembolism with a mortality rate of 0.5-2%[1,2]. Contrary to a well-established belief that incidence of postoperative DVT is very low in Indians as compared to other parts of the world, it has now been established that incidence of postoperative DVT is high in Indian population[4]. History and clinical examination are not reliable ways to diagnosing DVT in the lower limb. Screening for deep vein thrombosis can be done invasive as well as by non-invasive methods. Contrast venography (CV) was considered as gold standard for screening as well as diagnosis of DVT8 but now Colour Doppler Duplex Sonography (CCDS) is most commonly used modality for the screening of patients with DVT.

Aim and objectives

• To study the role of oral anticoagulants for Prophylaxis of Deep Vein Thrombosis in patients of Lower Limb Surgeries.
• To study safety and