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CASE REPORT

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TWO CASES OF RECURRENT DEEP VENOUS THROMBOSIS IN PATIENTS UNDER TREATMENT WITH ORAL DIRECT THROMBIN INHIBITORS

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A B S T R A C T

Background: Oral direct thrombin inhibitors are widely used for treatment and prophylaxis of thromboembolic disease.
Methods and Results: Herein, we report two cases of established recurrent deep venous thrombosis despite treatment with oral direct thrombin inhibitors.
Conclusion: Whether this failure was due to this class of newer anticoagulants or their recommended dosages remains to be elucidated.

INTRODUCTION

An eighty-seven years old female woman presented to the hospital with edema of her left foot. A triplex of the venous circulation, which was performed, confirmed the presence of acute thrombosis of the left femoral as well as the left lateral iliac vein. The patient had been on rivaroxaban 20 mg daily due to pulmonary embolism, which had occurred one month before her latest admission to the hospital. As a new episode of deep venous thrombosis occurred despite treatment on the recommended dose of rivaroxaban ie 15 mg twice daily for twenty one days and afterwards 20 mg daily, the patient was started on low molecular weight heparin according to her weight and her foot was significantly improved clinically. Notably, the patients' oxygen saturation was normal during her stay at the hospital. She was discharged in a good clinical condition and remains well three months later.

A ninety-one year old female patient presented to the emergency department of our hospital due to fever. On clinical examination, her left foot was edematous and the triplex, which was performed, revealed the presence of acute thrombosis of the left femoral vein. The patient had been on apixaban 2.5 twice daily due to the past medical history of deep venous thrombosis and to the fact that she had been bedridden since eight years. On account of the failure of apixaban treatment on the recommended dose, she was started on low molecular weight heparin and was discharged in good clinical condition and remains well two months later.

Low molecular weight heparins and oral vitamin K antagonists have traditionally been the cornerstone of treatment of deep venous thrombosis and/or pulmonary embolism. However, oral vitamin K antagonists have many disadvantages, such as the need to regularly monitor INR; otherwise, there is excess risk of bleeding or undertreatment [1, 2]. Recently, newer oral direct thrombin inhibitors have been initiated for the treatment of thromboembolic disease. As it is widely known, these agents do not need to be monitored at all and this is their main advantage, together with their safety profile, eventually [3, 4].

Nevertheless, these two case reports are suggestive of a potential failure of the newest oral direct thrombin inhibitors, as both patients presented with a new episode of deep venous thrombosis, despite being treated with the above-mentioned agents in the recommended doses. Whether this failure was due to this newest class of agents per se or the recommended doses for the prevention of recurrent deep venous thromboembolic disease remains to be elucidated. Further large scale studies are mandatory to confirm or not this clinical research note.

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Addendum

VN wrote the whole manuscript; ME and KD were responsible for the referencing, while GA made a substantial contribution to the concept and finally KE supervised the whole manuscript.

Compliance with Ethical Standards

There is no conflict of interest regarding this article.
There is no funding to report.

Research was done according to the Declaration of Helsinki. Informed consent was not obtained from the patients, as the patients are not recognizable from this Rapid Communication.

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