

The effect of warfarin and rivaroxaban in the treatment of venous sinus thrombosis: a case series

Abstract

Background: Warfarin is a drug that is used as an anticoagulant in the treatment of blood clots such as deep vein thrombosis and pulmonary embolism and to prevent stroke. Like warfarin, rivaroxaban is an anticoagulant used to treat and prevent blood clots. But compared to warfarin, it is associated with less drug interactions.

Aim: The present study was conducted with the aim of the effect of two drugs, warfarin and rivaroxaban, in the treatment of venous sinus thrombosis: a case report.

Materials and Methods: This study was conducted on patients with venous sinus thrombosis who referred to the neurology clinic of Alavi Hospital in Ardabil between 2020-22. 100 patients with CVT were randomly divided into two groups of 50 and the first group received rivaroxaban and the second group received warfarin. Patients have been evaluated before the study, three, six and nine months after receiving the treatment in terms of the desired variables. Collecting patient information through a questionnaire containing demographic information such as age, gender, education level, marital status and clinical information such as CT scan and MRI results, family history of the disease, type of underlying diseases, risk factors of the disease, clinical symptoms of the disease, type Prescription drugs, the incidence of side effects of the drug, the type of side effects, the severity of side effects and the effectiveness of the drug are collected.

Results: The comparison of mRS scores between groups showed insignificant differences between groups in any of the interval evaluations, these changes at the time of admission ($P = 0.579$), within three months after the start of treatment ($P = 0.579$) in Within six months after the start of treatment ($P = 0.579$) and one

year after the start of treatment ($P = 0.579$) there were no statistically significant differences between the two groups; While the Friedman test showed that both approaches led to a significant decrease in mRS scores after treatment ($P < 0.001$). Response to treatment with symptoms such as headache, blurred vision, diplopia, nausea, vomiting, seizures, ICH bleeding, ECH bleeding, papilloedema were compared between the two groups and the results indicated that none of the variables mentioned between the two groups participated. In the study, there was no statistically significant difference in any of the measured times. Death during follow-up was 1.8 per 100 patient-years in patients taking rivaroxaban (DOAC) compared to 1.90 per 100 patient-years in patients Warfarin users occurred ($N=845$ and $P=0.97$). In unweighted unadjusted Cox regression analyses, rivaroxaban (DOAC) treatment was associated with a similar risk of death as warfarin treatment (HR - 36.84 - 1.02). -0.2: CI95% and $P=0.97$). Bleeding occurred in 2.44 cases per 100 patient-years in patients using rivaroxaban (DOAC) compared to 4.70 cases per 100 patient-years in patients using warfarin ($N=845$ and $P=0.06$);

Conclusion: In the treatment of patients with CVT, rivaroxaban was better than warfarin in terms of clinical manifestations, neurological function and side effects; It should be noted that variables such as personality, family history of CVT and underlying diseases have a very minor role in response to treatment.

Key words: venous sinus thrombosis - warfarin-rivaroxaban - treatment