

EFFICACY AND SAFETY OF DIFFERENT ANTICOAGULANT TREATMENT REGIMENS FOR ISOLATED INTERNAL JUGULAR VEIN THROMBOSIS: A CASE SERIES.

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Isolated internal jugular veins thrombosis (IJVT), as atypical thrombosis, are classified as upper extremity deep vein thrombosis (UEDVT). The prevalence of IJVT is between 0,5% and 3,47%. The most common clinical presentation is arm edema and pain, but it can also be asymptomatic. Mechanical transient factors are the most common causes: central venous catheter (CVC) or lateral cervical abscess, while among permanent factors, active cancer and thrombophilia.

Given the known benefits of anticoagulation in preventing PE in patients with LEDVT and the estimated risk of PE in patients with UEDVT most clinicians empirically treat UEDVT in the same way as LEDVT. Nevertheless, atypical site are treated with VKA and there are few data about DOACs. Furthermore, patients with UEDVT have seldom signs of clinically overt PE at time of presentation, but the rate of recurrence in patients with catheter-related UEDVT is high, suggesting that appropriate therapy should not differ from typical thrombosis. No randomized controlled trials have been performed on the optimal treatment for patients with IJVT. Therefore, there is still debate about what the best therapy is and how side-effects can be minimized.

For these reasons, we collected a case series of 29 patients from 2014 to 2024 who referred consecutively at the Centre of Anticoagulant therapies of Policlinico Umberto I, in Rome for IJVT. The aim of this study was to compare the type of anticoagulant regimen (VKA, DOACs and parenteral ones) to observe differences in terms of bleedings and thromboembolic events.

We enclose 17 patients treated with VKA, 6 with DOACs and 6 with parenteral anticoagulants. The IJVT diagnosis was made with a color-doppler ultrasound. Patients were examined after 3, 6 and 12 months and after the first year of

treatment, annually.

Main outcome were events including death from any cause, recurrence of thrombosis and bleedings.

There was no difference among three groups regarding sex, age, presence of symptoms at diagnosis, history of cancer, genetic thrombophilia and of the main cardiovascular risk factors. The only significant difference was regarding the cause of IJVT: Lemierre's syndrome was more frequent in patients treated with VKA while CVC in patients with DOACs. The mean lenght of treatment was 37 months. Among DOACs, apixaban was the most used Warfarin for VKAs and low molecular weight heparin for parenteral anticoagulant therapy.

Regarding the main outcomes, bleedings were more frequent in the VKAs group, with no major bleeding and 3 CRNMB. Death occurred more frequently in the parenteral group and it was due to cause other than cardiovascular or thromboembolic ones. Recurrences of thromboembolic event occurred only in VKAs group, and 60% were after suspension of anticoagulant treatment.

Based on this case series, VKA, DOACs and parenteral anticoagulant do not seem to have the same safety and effectiveness in patients with isolated internal jugular vein thrombosis, since there have been more VTE recurrence and more bleeding events in the VKAs group.

The present study have limitation since it is a small case series of a monocentric collection with retrospective data. A lot of remaining questions remain open on this topic: if we should collect color-doppler ultrasound to check after 3-6 months to guide the anticoagulant treatment lenght and it would be useful a comparison among DOACs to understand the most effective.

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