

Response to: Is there any clinical reason to administer anticoagulant therapy to patients with the Jugular Vein Nutcracker Syndrome?

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Dear Editor;

We would like to thank you for the opportunity to respond to the Letter “Is there any clinical reason to administer anticoagulant therapy to patients with the Jugular Vein Nutcracker syndrome?” by Siniscalchi and Raffa.¹ Also, we would like to thank the colleagues for their appreciation of our work “Neurosurgical implications of the Jugular Vein Nutcracker (JVN)”.² Effectively, JVN is a trend topic either in clinical and preclinical research, but still our comprehension of the problem and its pathophysiological relations is limited.

As pointed out by our colleagues, there are practical aspects that should be considered. To date, there are no clear guidelines on the medical management of JVN while waiting for surgery or as an alternative to it. Bai *et al.*³ suggest the use of both standard Antiplatelet (AP) and Anticoagulant (AC) prophylaxis. On the other side, the “International clinical practice guidelines for the

treatment and prophylaxis of thrombosis associated with Central Venous Catheters (CVC) in patients with cancer”⁴ does not recommend the routine use of anticoagulant prophylaxis (Level of evidence 1A). It is to say that the two situations are not completely comparable (*ab estrinseco* compression vs direct endothelial damage) but at least similar in the final considered result (Internal Jugular Vein thrombosis and its consequences).⁵ Finally, it can be said that AC for symptomatic JVN has a rational of employment, but further specific longitudinal studies are needed.

Even less light has been shed on the molecular pathology underneath JVN. For sure, stemming from the study of Ten Cate V *et al.*,⁶ it would be interesting to assess miRNA expression in JVN patients and comparing both with healthy control and recurrent venous thrombosis patients searching for significant associations. The clinical utility of this approach could be valid, but still to be demonstrated.

In conclusion, it is for sure time to discuss and to collaborate in performing high quality trials to ameliorate our comprehension, diagnosis and management of such an underestimate pathology as JVN.

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