

## Setting of helium plasma device (J-Plasma) in flap elevation

To the Editor:

We read with interest the article, "Use of low temperature helium plasma (J-Plasma) for dissection and hemostasis during carotid endarterectomy,"<sup>1</sup> recently published in the *Journal of Vascular Surgery Cases and Innovative Techniques*. In our opinion, this article represents such an innovative surgical technique that deserves to be shared.

In our department, the Plastic Surgery Division of the University Hospital of Modena, we have experienced various instruments, from traditional devices for dissection and coagulation<sup>2,3</sup> to the most recent helium plasma (J-Plasma) device we implemented for the elevation of the free flap in microsurgery.<sup>4</sup>

As with the Filis et al experience,<sup>1</sup> we have found advantages of this device over traditional devices, such as the possibility of performing dissection and hemostasis simultaneously, as well as the absence of muscle dissection and the absence of fat necrosis associated to nonformation of serum and/or burn tissues during dissection. Furthermore, we found a significant decreased risk of accidental tissue trauma.<sup>4</sup>

We believe that the Filis et al article is critical to encourage dissection of vessels through such a safety device. Moreover, Filis et al state that a generator power setting at 20 W cutting mode and 30 W coagulation modes, but did not specify the helium gas flow rate. In our experience, the setting for this instrument is different: for a free flap fibula, we use to set up gas flow rate at 4 L and radiofrequency power at 30% in coagulation and cutting, whereas in the radial flap for forearm set up is within 3 L gas flow and 20% of power.<sup>4</sup>

These settings were used for all stages of the microsurgical procedure, including dissection of the peduncle (both artery and vein). The system allows to implementing additional modes: Turbo Cut, able to facilitate precise dissection in high impedance filmed tissue, and a Cool

Coag mode, applicable for wider hemostasis. All modes can be applied by using the instrument's integrated blade either extended or retracted.

However, in our experience, to facilitate anastomosis, we separated the artery from the vein of the peduncle with traditional microforceps and scissors. These vessels have a smaller caliber than the common carotid artery. In our opinion, the Filis et al experience can be very encouraging for the future use of helium plasma in dissecting vessels in plastic surgery, for example, when performing a perforator flap. In accord with Filis et al, we believe that the settings can be reevaluated in the future with increasing experience. Specific settings based on vessel sizes should be studied. We hope that our experience will be useful to increase knowledge on setting up helium plasma.

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## REFERENCES

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<https://doi.org/10.1016/j.jvscit.2020.07.008>