



# Using a Syringe Pump during Mechanochemical Ablation Is Not Mandatory, but It Is Easy to Control

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Dear Editor:

I appreciate the interest and comments relating to my recent article entitled “Automatic Sclerosant Injection Technique of Mechanochemical Ablation with ClariVein Using a Syringe Pump for the Treatment of Varicose Veins” [1]. Tang et al. [2] provided elegant and intelligible comments as a result of their extensive experience with mechanochemical ablation (MOCA) of varicose veins. Actually, I had the opportunity to visit Dr. Tang’s hospital before MOCA was launched in Korea, during which, I was able to observe and discuss the procedure with him. I would like to thank them for sharing their know-how and tips in order to reduce recurrence after MOCA in their Letter to the Editor.

Through my experience of over 400 MOCA procedures, I have learned that adjusting the pullback speed according to the vein condition is necessary for a better closure rate. The key point of my previous technical note was to provide beginners with useful tips to initiate the MOCA procedure with less confusion and high reproducibility.

Tang et al. [2] mentioned that while treating larger veins or branching areas, more quantities of sclerosant are needed, which is easier with hand injection than with a syringe pump. I completely agree that the important areas during the MOCA should receive the most chemicals. However, with a syringe pump, it is possible to control the pullback speed, amount of chemicals, and mechanical injuries to a specific vein segment.

The advantages of using a syringe pump are considerable. First, the use of a syringe simplifies the MOCA procedure because one is free from injecting the chemical and it is possible to concentrate solely on the pullback speed of the device. Of course, I agree that experienced hands can perform MOCA with manual injection without a syringe pump. However, I still use a syringe pump because it is easy, reliable, and reproducible. Second, the injection amount can be easily controlled by adjusting the manual pullback speed with hand-eye coordination. Finally, I believe that the use of a syringe pump has a particular advantage in that it prevents unintentional excessive injection of sclerosant.

I am sure that this written discussion will be of great help in implementing MOCA not only for young vascular surgeons starting MOCA, but also for some experienced surgeons.

## CONFLICTS OF INTEREST

The authors have nothing to disclose.

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## REFERENCES

- 1) Park I, Kim D. Automatic sclerosant injection technique of mechanochemical ablation with ClariVein using a syringe

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