Letter to the Editor: The Authors' Reply

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Reply to Commentary on "Risk Factors for Transurethral Coagulation for Hemostasis During Holmium Laser Enucleation of the Prostate"

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Dear Dr. Pankaj N. Maheshwari,

Thank you for your thoughtful comments on this paper.
While the previous studies have solely emphasized the advantages of holmium laser enucleation of the prostate (HoLEP), this paper brings up underestimated risk factors surrounding bleeding and hemostasis during the HoLEP procedure. Your comments on reducing the need for transurethral coagulation are very insightful in providing general principles on hemostasis during HoLEP, which beginner surgeons worthwhile to remember.

Seoul National University Hospital has implemented HoLEP on more than 3,000 patients for the last 15 years. We always enucleate the adenoma along the capsule plane, which is a standard technique [1,2]. In our routine HoLEP procedure, there is no capsule perforation or bladder damage during morcellation. Even in these conditions, to varying degrees, intraoperative bleeding is almost always present. This is because larger prostates have more blood vessels in the capsular plane including creeping vessels, which increases the risk of bleeding. To support this, we have previously published our analysis on the distribution of blood vessels during surgery [3]. Many surgeons experience delayed morcellation because of the bleeding. Therefore, it is the norm for us to have highly experienced surgeons perform transurethral coagulation to speed up. These surgeons successfully perform the coagulation without violating the capsular plane.

An earlier version of Lumenis holmium machine with 100 W only has a short-pulse mode, so hemostasis is not effective due to the cavitation effect of shock waves from the laser pulse on the prostatic tissue surface. The 120-W Lumenis device has a long-pulse mode, which is considerably more effective for hemostasis than the short-pulse mode. The patient data in the present paper is the clinical result of surgery with the 100-W Lumenis equipment.

Regardless, even experienced surgeons face bleeding during HoLEP. We quantified and demonstrated the correlation between the prostatic condition and bleeding in this paper. It is meaningful in looking at hemostasis/bleeding during HoLEP, an issue that has been underestimated for a long time.

• **Conflict of Interest:** No potential conflict of interest relevant to this article was reported.

See the article "Risk Factors for Transurethral Coagulation for Hemostasis During Holmium Laser Enucleation of the Prostate" via https://doi.org/10.5213/inj.2142414.207.

See the letter "Risk Factors for Transurethral Coagulation for Hemostasis During Holmium Laser Enucleation of the Prostate" via https://doi.org/10.5213/inj.2244240.120.

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