

Ambulatory Tubeless Mini-Percutaneous Nephrolithotomy Using Moses Technology and Dusting Technique



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OBJECTIVE	To demonstrate the use of the Moses technology for holmium laser lithotripsy in conjunction with mini-percutaneous nephrolithotomy (PCNL) to treat a lower pole stone. The Moses technology is a pulse modulation method that can reduce stone retropulsion, which may have advantages when used during mini-PCNL.
METHODS	A 63-year-old patient with a left-sided 1.5 cm lower pole stone (1300 Hounsfield Unit) underwent mini-PCNL using a 120W holmium laser (MosesP120, Lumenis). Moses has 2 modes—“Contact” and “Distance”—optimized for operation at 0-1 and 2-3 mm from the stone surface, respectively. Percutaneous access was obtained into the lower pole while the patient was in prone position. Using the medium (17.5F) mini-PCNL set (Karl Storz), the stone was fragmented using dusting settings with a 230 μ m Moses fiber (0.3 J \times 20-30 Hz; Moses Contact and Distance modes).
RESULTS	The video demonstrates the capabilities of treating a lower pole stone with a dusting technique using Moses modes. Dusting, to decrease the stone size so that it can fit within the sheath, in combination with fragment expulsion with the Venturi effect, as well as extraction with graspers/baskets resulted in complete stone removal. Following placement of an antegrade ureteral stent (tubeless technique) and sealing of the tract with FloSeal, the patient was discharged from the recovery unit. There were no adverse events. The stent was removed after 7 days, and follow-up KUB at 2 weeks showed no residual fragment.
CONCLUSION	Due to the miniaturization of equipment, the holmium laser serves as an ideal energy source for fragmentation. In our early experience, the Moses technology with mini-PCNL allows a combination of dusting and stone extraction. As mini-PCNL offers smaller tract dilatation, for lower pole stones it can be performed in an ambulatory setting and is an alternative to ureteroscopy or shockwave lithotripsy with the potential for complete stone clearance. UROLOGY 124: 306, 2019. © 2018 Elsevier Inc.



Disclosures: Khurshid Ghani is a consultant for Lumenis and Boston Scientific.

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