

Feasibility of Ejaculation Preservation Technique of Holmium Laser Enucleation of the Prostate (HoLEP)

Introduction and Objective: Recently, ejaculation preservation technique in transurethral prostatectomy and Green Light laser prostatectomy which demonstrated over 80% of antegrade ejaculation preservation rate has been introduced. The authors aimed to investigate the feasibility of ejaculation preservation technique in Holmium laser enucleation of prostate (HoLEP).

Materials and Methods: Among HoLEP candidates, those who felt that their ejaculatory function was satisfactory were allocated to either ejaculation preserving-HoLEP (EP-HoLEP) group (Group A) or conventional HoLEP group (Group B). Unlike conventional HoLEP, pericollicular tissue preserving technique was applied in EP-HoLEP group. There were 52 patients successfully followed up for over 3 months postoperatively and were eligible for analysis. There were 26 patients in each group. The patient was assessed to have preserved ejaculatory function if the patient answered to have antegrade ejaculation regardless of ejaculatory volume during 1, 3, and 6-months follow up at the out-patient department.

Results: There were no differences in pre- and intra-operative factors such as age, prostate volume, operation time, and used laser energy. In group A, there were 3 (11.5%), 6 (23.1%), and 17 (65.4%) cases of normal antegrade ejaculation, antegrade ejaculation with decreased volume, and diminished ejaculatory volume, respectively. In contrast, Group B consisted of 0 (0%), 5 (19.2%), and 21 (80.8%) cases, respectively. Ejaculation preservation rate was 34.6% in group A and 19.2% in group B. The odds ratio was found to be 2.2 but statistical significant was not demonstrated ($p=0.211$) (Table).

Conclusion: Despite application of ejaculation preservation technique to HoLEP, ejaculation function could not be significantly improved. It is speculated that leaving more adenoma tissue around the verumontanum and the apex of the prostate may further improve ejaculation function. However, this method is in conflict with the value of HoLEP which is to completely enucleate prostatic adenoma. Therefore, preservation of ejaculation function seems to be hardly possible when performing HoLEP.

Table Cross tabulation of ejaculation preservation results in each groups. P value was evaluated with the chi-square analysis.

	Group A (n=26)	Group B (n=26)	Total (N=52)	P
Ejaculation (+), N (%)	9 (34.6)	5 (19.2)	14 (26.9)	0.211
Ejaculation (-), N (%)	17 (65.4)	21 (80.8)	38 (73.1)	