

CHANGE OF ERECTILE FUNCTION FOLLOWING HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HOLEP)

Hypothesis / aims of study

In general, surgical treatment of benign prostate hyperplasia (BPH) was known that it has no influence on erectile function (EF). However, a few patients complains decreased their EF following BPH surgery. In addition, previous studies reported inconsistent result about EF after the treatment. The aim of this study was to evaluate change of erectile function following Holmium laser enucleation of the prostate (HoLEP).

Study design, materials and methods

This retrospective study included patients who underwent HoLEP for BPH between July, 2008 and June, 2012, and were evaluated for erectile function with International index of erectile function (IIEF). Postoperative follow up was performed routinely at postoperative 3, 6, and 12 months. Patients who have no sexual activity and used type 5 phosphodiesterase inhibitors for erectile dysfunction were excluded. A deterioration of erectile function was defined by the reduction of 3 or more points in erectile function (EF) domain, and an improvement of erectile function was defined by the increase of 3 or more points in EF domain.

Results

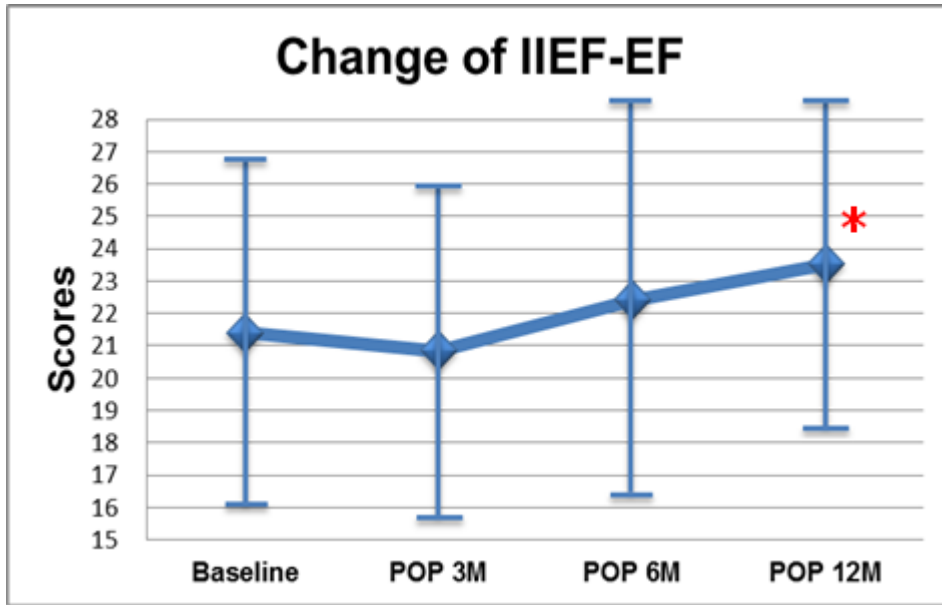
The mean age of 87 patients included in the final analysis was 65.8 ± 5.7 years, and the mean prostate volume was 53.7 ± 20.5 cc. Preoperative mean point of EF domain was 23.4 ± 6.1 . The decrease of ejaculatory volume occurred in 41 (47.1%) patients and anejaculation was occurred in 17 (19.5%) patients. The changes of points in EF domain were -0.4 ± 8.4 ($p=0.688$), $+0.6 \pm 6.6$ ($p=0.430$), $+2.3 \pm 6.7$ ($p=0.019$) at postoperative 3, 6, and 12 months, respectively. The points of domains of sexual desire, intercourse satisfaction, and overall satisfaction were not changed significantly after the surgery. Only were points in organic function domain decreased significantly at all postoperative follow up period ($p<0.05$). The proportions of the patients who showed a deterioration of EF were 33.8%, 32.8%, and 40.8% at postoperative 3, 6, and 12 months. The proportions of the patients who showed an improvement of EF were 39.7%, 21.3%, and 22.4% at the same period. Patients who showed a deterioration of EF, compared to patients who did not, had no significant difference in age, hypertension, diabetes, PSA, prostate volume, Qmax, PVR, preoperative IIEF, BOOI, involuntary detrusor contraction, detrusor activity, resected weight of prostate, postoperative incontinence, retrograde ejaculation, and urethral stricture. In the patients who showed a decreased EF at postoperative 3 months, BMI and preoperative points of EF domain were higher than those who did not. However these differences were not significant at postoperative 6 and 12 months.

Interpretation of results

The Mean EF-domain scores of patients in this study was increased after HoLEP. However, 30-40% of patients showed decrease of EF scores. We could not find any factor that can explain the deterioration of EF. Especially, surgical related factors had no influence on the decrease of EF scores.

Concluding message

In this study, change of erectile function varies from person to person. In total patients, erectile function tends to be improved after HoLEP. In addition, we cannot find any surgical factors that are related to decrease of erectile function after the surgery.



Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Seoul National University Hospital Institutional Review Board **Helsinki:** Yes **Informed Consent:** Yes