

NEW SURGICAL MENTORSHIP, “HAND HOLDING TEACHING TECHNIQUE” FOR SHORTENING THE LEARNING CURVE OF HOLEP

Hypothesis / aims of study

Although it's high treatment efficacy, one of the major disadvantages is the perception that HoLEP (Holmium laser enucleation of prostate) is a difficult procedure to learn; it has been estimated that about 20 cases are required to achieve basic competence in the procedure. We present the new surgical mentorship, “hand holding teaching technique” for shortening the learning curve of HoLEP.

Study design, materials and methods

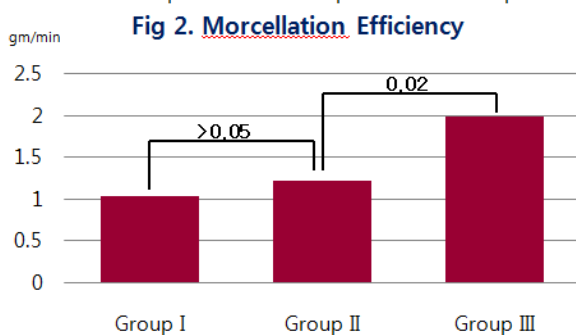
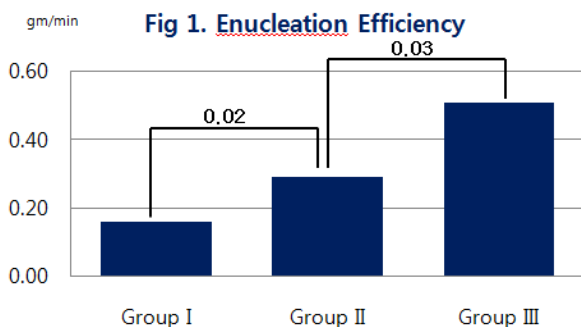
Between May 2009 and October 2010, 350 consecutive patients with symptomatic BPH were managed by HoLEP using a high-powered holmium laser (100 W). Among these patients, total 30 patients (each first 10 cases who underwent HoLEP by 3 surgeons) were retrospectively analyzed. Group I surgeon only watched 4 edited videos, group II surgeon watched videos, and attended as an assistant and group III surgeon learned process using hand holding teaching technique additionally. To assess the effect of the learning curve, we reviewed differences of enucleation and morcellation efficiency of each group.

Results

The mean patient age of group I, II and III was 67.3(54-76), 66.6(54-79) and 65.9(57-80) years, respectively. The mean prostate volume was 56.7±20.8, 55.1±17.0 and 65.8±26.6gm, mean PSA was 4.1±4.8, 6.1±5.4 and 3.8±2.1ng/ml, respectively. There was no significant difference between each group. Enucleation efficiency was 0.16±0.08, 0.29±0.17 and 0.51±0.27gm/min, efficiency was high in group II than I (p=0.02) and III than II (p=0.03). Morcellation efficiency was 1.03±0.37, 1.22±0.64 and 1.98±0.84gm/min, efficiency was high in group III than II (p=0.02).

Table 1. Baseline characteristics

| | Group I | Group II | Group III | p |
|----------------------|-------------|-------------|-------------|--------|
| Age (years) | 67.3(54-76) | 66.6(54-79) | 65.9(57-80) | > 0.05 |
| Prostate volume (gm) | 56.7±20.8 | 55.1±17.0 | 65.8±26.6 | > 0.05 |
| PSA (ng/dl) | 4.1±4.8 | 6.1±5.4 | 3.8±2.1 | > 0.05 |



Interpretation of results

Learning curve of HoLEP can be minimized using hand holding teaching technique add to conventional video watching and assistance.

Concluding message

We think that this technique may help understanding of prostatic 3-dimensional image, lasering direction and pushing pressure. By following a validated technique, under the supervision of an experienced urologist, the learning process is improved and shortened.

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| <i>Specify source of funding or grant</i> | NONE |
| <i>Is this a clinical trial?</i> | No |
| <i>What were the subjects in the study?</i> | HUMAN |
| <i>Was this study approved by an ethics committee?</i> | Yes |
| <i>Specify Name of Ethics Committee</i> | PNUH IRB (Pusan National University Hospital Institutional Review Board) |
| <i>Was the Declaration of Helsinki followed?</i> | Yes |
| <i>Was informed consent obtained from the patients?</i> | Yes |