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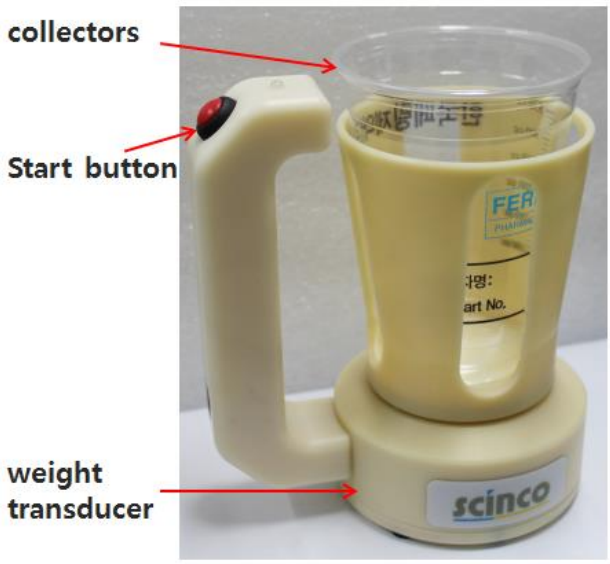
NOVEL PORTABLE HANDHELD HOME UROFLOWMETRY FOR COMFORTABLE UROFLOW STUDY

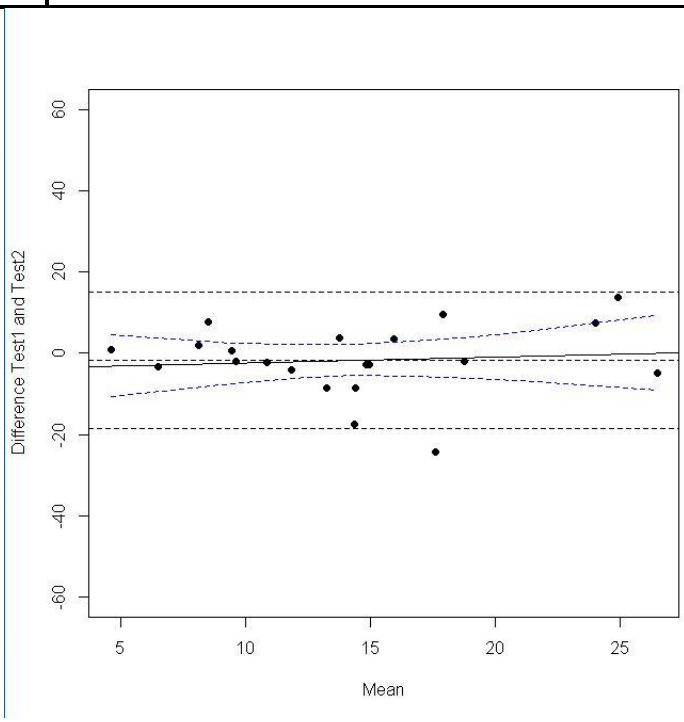
Hypothesis / aims of study
We designed a novel portable handheld home uroflowmetry. In this study, we compared it with conventional uroflowmetry in evaluation of the men with lower urinary tract symptoms (LUTS).

Study design, materials and methods
The portable handheld home uroflowmetry. The device could obtain conventional uroflow data as well as an automated frequency volume charts along with measurements of the full flow trace and voided volume for multiple voids, without the need for the patients to document results. 50 male patients with LUTS were tested simultaneously with the portable handheld home uroflowmetry and conventional uroflowmetry. The uroflowmetry parameters (peak flowrate, time to peak flow, voided volume, voiding time, average flowrate) were compared to the conventional uroflowmetry. Evaluation agreement between two measurement methods was made using Bland-Altman analysis.

Table 1. Baseline characteristics in the patients.

Age (years)	63.7 ± 12.9
Qmax (mL/sec)	13.5 ± 7.6
Voiding volume (mL)	224.3 ± 130.1
PVR (mL)	40.3 ± 39.3
Potable Qmax (mL/sec)	15.1 ± 7.0
Post voiding volume (mL)	174.5 ± 91.3
Post PVR (mL)	38.2 ± 64.6





Results
Qmax between portable handheld uroflowmetry and conventional uroflowmetry were observed with mean difference of 1.71 ± 8.45 ml/sec, respectively. There is no significant difference of Qmax between portable handheld uroflowmetry and conventional uroflowmetry.

Interpretation of results
The novel handheld home uroflowmetry shows a good estimate of the results with conventional portable uroflowmetry.

Concluding message
The novel handheld home uroflowmetry was found to be a convenient and more reproducible method of real-life than conventional uroflowmetry.

Disclosures
Funding: none **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Institutional Review Board of the Korea University Hospital **Helsinki:** Yes **Informed Consent:** Yes