

DEVELOPMENT AND APPLICATION OF VISUAL UROFLOW SCALE

Hypothesis / aims of study

To develop the Visual Uroflow Scale (VUS), analyze the relationship of VUS score and maximum flow rate (Qmax), assess urination function preliminarily and improve the work efficiency in the clinic.

Study design, materials and methods

Male LUTS patients, attended the department of Urology in Peking University People's Hospital from March 2016 to March 2017, assessed himself urination function according to the Visual Uroflow Scale, before undertaken uroflow test. The VUS is figure 1. Inclusion criteria: 1. Judgement should be made clearly and definitely, 2. The voiding volume should range from 150ml to 400ml. Exclusion criteria: 1. Illusions appear, 2. The urination process is unusual. During the research, 124 cases were collected and 54 cases meet the inclusion and exclusion criteria. Data of uroflow include maximum flow rate (Qmax), average flow rate (Qave), voiding volume, flow time (TQ), voiding time and time to maximum flow (TQmax). The Pearson Correlation Analysis was used for analyzing the correlation of VUS score with Qmax and age. The validity of VUS was evaluated.

Results

Uroflow data is in table 1. By Pearson correlation analysis, VUS score and Qmax is negative correlated, the correlation coefficient is -0.54 (figure 2.1), while VUS score and age is positive correlated with a correlation coefficient is 0.79 (figure 2.2). The research illustrates that VUS score suggest the Qmax basically, and its relationship to age accord to the decreased urination function of aging male.

Interpretation of results

Holding back urine is necessary before undertaking a uroflow test. Influenced by outpatient capacity and limited time, a uroflow test prolonged attending time. Development of VUS help the clinician assess the urination function preliminarily in the first time. And considering of convenience, timesaving and easy to understand, the VUS is available for follow-up.

Concluding message

Development and application of Visual Uroflow Scale are useful and necessary

Fig. 1

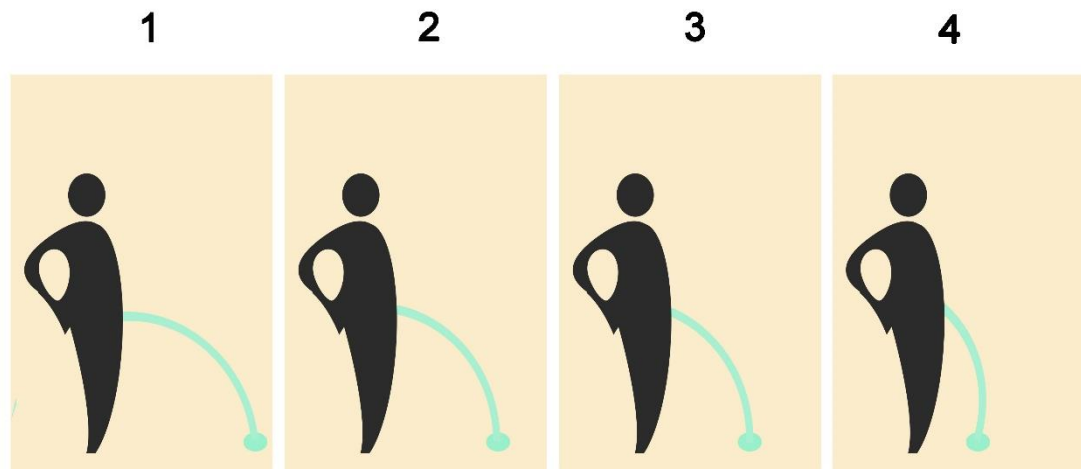
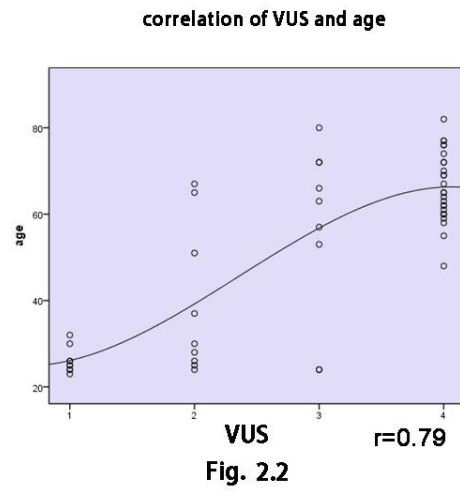
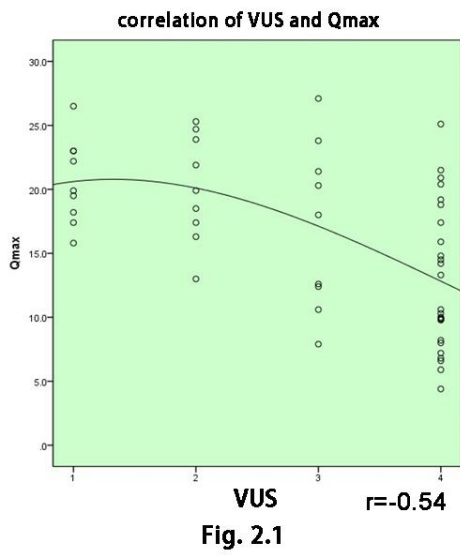


Table 1

Group	Item	Age (year)	Qmax (ml/s)	Voiding volume (ml)	TQ (s)	Qave (ml/s)	Voiding time (s)	TQmax (s)
1		26.11 ± 2.98	20.61 ± 3.34	221.00 ± 84.21	19.22 ± 10.30	12.10 ± 1.91	19.27 ± 10.42	8.40 ± 5.19
	2	39.22 ± 17.32	20.10 ± 4.19	258.67 ± 55.12	24.77 ± 7.91	11.22 ± 3.58	25.42 ± 8.43	10.33 ± 3.97
3		56.78 ± 20.278	17.12 ± 6.55	253.78 ± 65.53	32.88 ± 12.61	8.79 ± 3.89	35.50 ± 14.24	8.23 ± 3.49
	4	66.27 ± 8.01	12.82 ± 5.62	248.65 ± 64.52	44.34 ± 18.96	6.44 ± 2.69	51.04 ± 25.63	14.02 ± 9.71

Fig. 2



Disclosures

Funding: NO Clinical Trial: No Subjects: NONE