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**Title:** EFFICACY OF KONTINENCE VARIANT IN THE TREATMENT OF FEMALE URINARY INCONTINENCE

### Aims of study:

EMG biofeedback and pelvic floor electrical stimulation are new modalities that have been advocated for the treatment of female urinary incontinence. The aim of this study is to compare proactively the therapeutic effect of Kontinence™ HMT2000 with Kontinence™ HMT21(HMT, Inc., Korea) in female urinary incontinence.

### Methods:

All patients were evaluated with a complete history, physical examination, urinarysis, urine culture and urodynamic study. Eighteen patients were treated with HMT21, and thirteen patients with HMT2000. Enrolled patients had completed 8 office sessions consisting of biofeedback and intravaginal electrical stimulation according to the program of each apparatus.

### Results:

Overall treatment response was graded by patients on a scale of complete cure to aggravation. At two weeks after the last session, overall improvement rate was 78% in HMT21 group and 92% in HMT2000 group( $p>0.05$ ). Overall patients acceptability during treatment course was greater than 80% in both apparatus( $p>0.05$ ). There were no unexpected clinical findings during treatment. After treatment, there were no laboratory changes including electrocardiography, complete blood count, liver function profile, and chest PA.

Table 1. Characteristics of enrolled patient and overall study results

Parameter	HMT21 (n=18)	HMT2000 (n=13)
Mean age( $\pm$ SD) <sup>§</sup>	50.1 $\pm$ 7.3	47.3 $\pm$ 6.1
Diagnosis		
	Genuine stress incontinence	4(22%)
	Genuine urge incontinence	4(22%)
	Mixed incontinence	10(57%)
Treatment acceptability*		
	Good	3(17%)
	Fair	12(67%)
	Bad	3(17%)
Treatment response*		
	Complete cure	3(17%)
	Improvement	11(61%)
	No improvement	4(22%)
	Aggravation	0(0%)
Electromyographic display*		
	Good	16(89%)
	Fair	2(11%)
	Bad	0(0%)

§ : no statistical difference by Mann-Whitney U-test

\* : no statistical difference by Fisher's exact test

Table 2. The effects by therapeutic type.

Therapeutic type Effects	Stimulation only	EMG biofeedback only	Stimulation and EMG biofeedback
Complete cure	3%	2%	10%
Significant improvement	14%	8%	17%
Mild improvement	2%	21%	15%
No improvement	1%	7%	-

**Conclusions:**

These results showed that the EMG biofeedback and electrical stimulation with HMT2000 and HMT21 was safe and moderately effective for female urinary incontinence as pilot study.

No Fund