

Preoperative ultrasound-guided pelvic floor muscle training facilitates continence recovery in the early phase after robot assisted radical prostatectomy.

Yoshida M¹, Matsunaga A², Fujimura T³, Sato Y³, Kamei J³, Watanabe D³, Aizawa N⁴, Shinoda Y⁵, Haga N⁵, Kume H³, Igawa Y⁴, Sanada H⁶

1. Department of Imaging Nursing Science, 3. Department of Urology, 4. Department of Continence Medicine, 5. Department of Rehabilitation Medicine, 6. Department of Gerontological Nursing, The University of Tokyo, Graduate School of Medicine, Tokyo, Japan
2. Department of Rehabilitation Medicine, The University of Tokyo Hospital, Tokyo, Japan

INTRODUCTION

- Intraoperative damage to the native urethral sphincteric mechanisms is a cause of urinary incontinence (UI) after robot-assisted radical prostatectomy (RARP).
- Preoperative Ultrasound (US)-guided PFMT rapidly promotes continence recovery compared with patients who received verbal PFMT only after RARP. (Yoshida M, et al, ICS 2017, abstract # 215)

AIM

To determine whether combined preoperative and postoperative (i.e perioperative) US-guided PFMT can lead better continence recovery compared with preoperative US-guided PFMT in patients underwent RARP

RESULTS

- The perioperative PFMT group had significantly less volume of extirpated specimens (prostate volume) and shorter duration of indwelling catheter [Table 1].
- The continence recovery rate for all observation period was similar between the two groups [Figure 1].

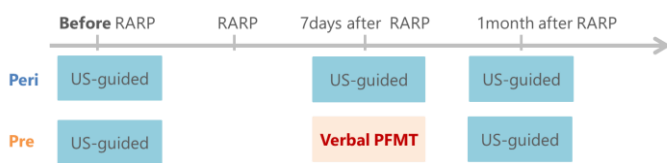
CONCLUSION

Addition of US-guided PFMT immediately after urethral catheter removal to preoperative US-guided PFMT is not superior to preoperative US-guided PFMT alone in promoting continence recovery in the early phase after RARP.

METHOD

- **DESIGN:** Prospective observational study
- **SUBJECTS:** Patients who underwent RARP
- **OUTCOME:** No more than one small pad (20g) use per day by self-report

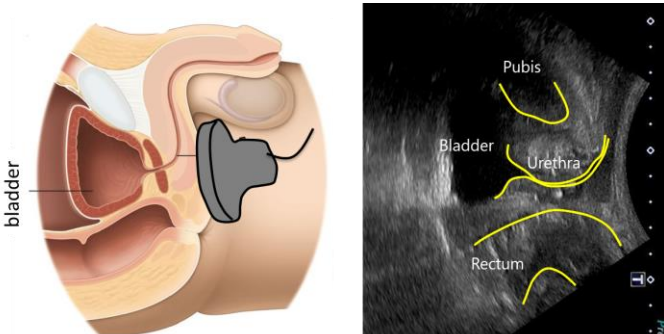
PROCEDURE:



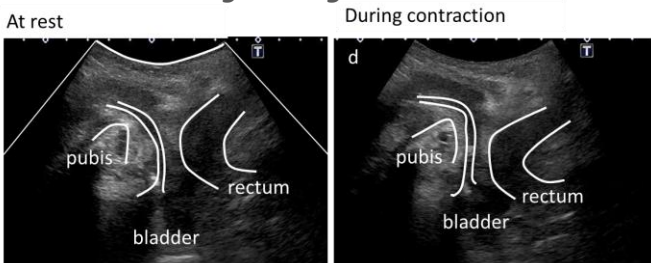
US-GUIDED PFMT

A team of a nurse and physiotherapist provided US-guided PFMT for two groups.

Transperineal US method



Anatomical change during PFM contraction



- SETTING: A university hospital
- PERIOD: March 2016 to December 2017
- ETHICS: Approved by the Ethical Committee of the University of Tokyo. Written informed consent was obtained from all patients.

FIGURES

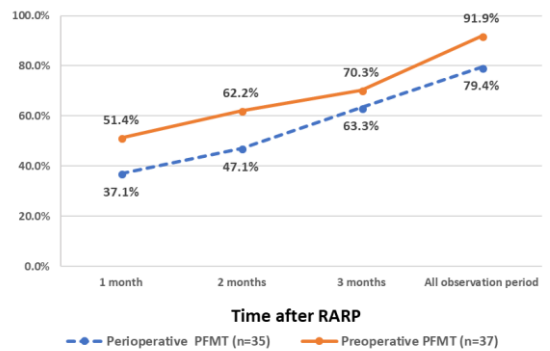


Figure 1. Rate of continence recovery

There are no differences in rate of continence recovery between the two groups (p=0.225 at 1 month, p=0.201 at 2 months, p = 0.548 at 3 months, p = 0.103 for all observation period by Student's t test).

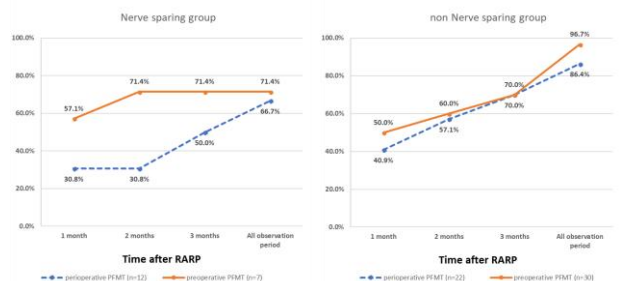


Figure 2. Rate of continence recovery stratified by nerve sparing

Table 1. Characteristics between the two groups.

	Peri group (n=35)	Pre group (n=37)	p
Demographics			
Age (years)	66.4±5.8	66.2±5.8	0.911
BMI (Kg/m ²)	24.0±3.0	24.3±3.2	0.811
PSA level	11.8±11.9	11.1±11.5	0.777
Perioperative data			
Console time (min)	66.4±5.8	66.2±5.8	0.558
Nerve sparing (yes)	13(37.1%)	7(18.9%)	0.084
Lymph node dissection(yes)	14(42.4%)	25(28.6%)	0.232
Prostate volume	40.1±13.5	47.5±16.5	0.044
pT stage (≥ pT3a)	14(40.0%)	10(27.0%)	0.243
Catheter duration (days)	5.9±0.7	6.9±1.7	0.004

Mean ± SD (range), n (%). Student t-test or Fisher's exact test.