



The effects of a heating pad on reduction of anxiety, pain and distress during cystoscopy in female patients

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BACKGROUNDS

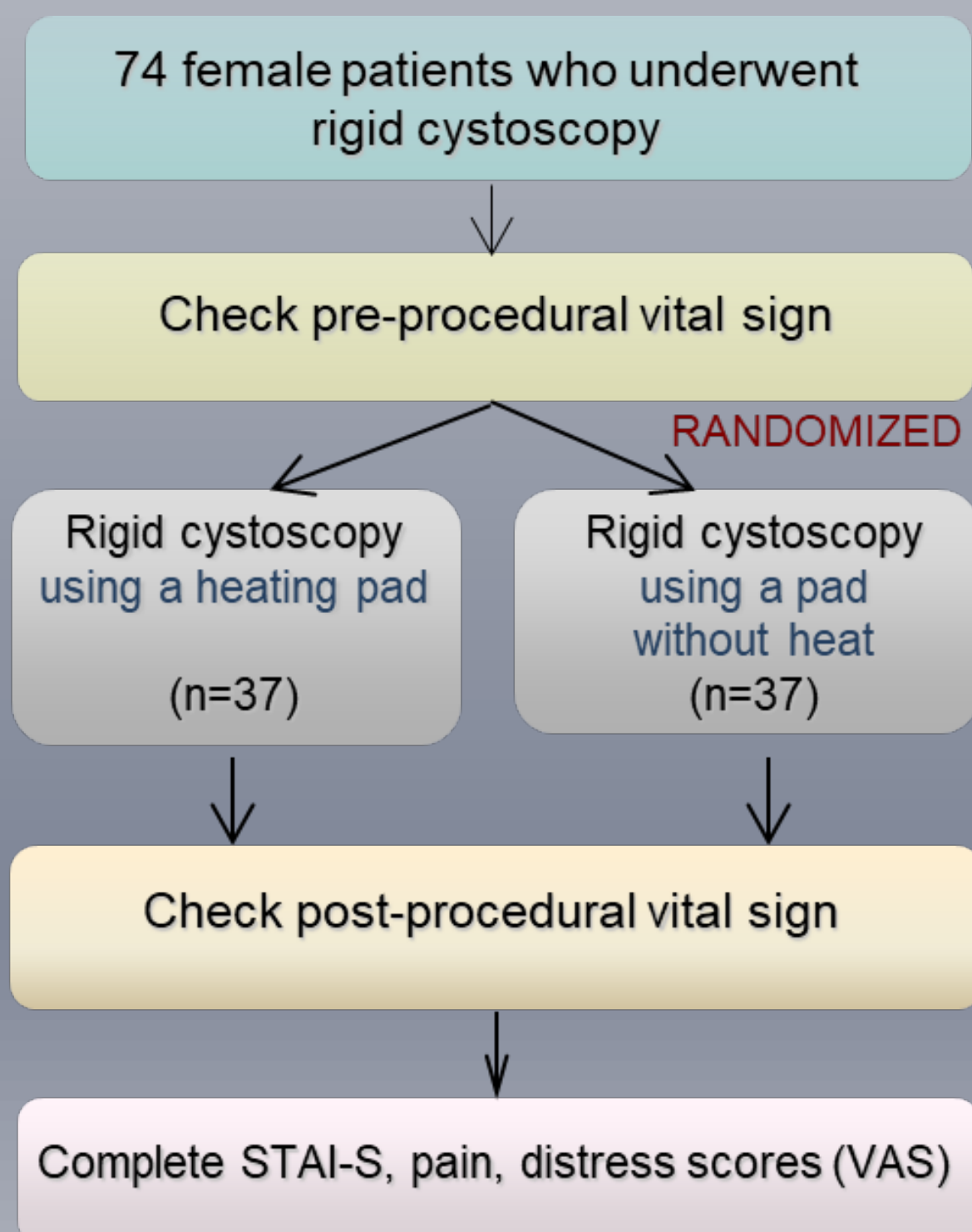
◆ Although rigid cystoscopy is generally well tolerated, most patients regard it as an unpleasant and stressful procedure. Additionally, pain-specific anxiety, physical injury, and isolation can cause patient stress during cystoscopy.

OBJECTIVES

◆ To evaluate the effects of using a heating pad during cystoscopy on anxiety, pain, and distress in female patients.

MATERIALS & METHODS

- ◆ A prospective randomized study.
- ◆ Between January 2017 and August 2017
- ◆ 74 female patients who underwent rigid cystoscopy.
- ◆ Randomized to either the heating pad (n= 37) or control (n=37) group.
- ◆ In experimental group a heating pad was applied on the female patient's sacrum during cystoscopy.
- ◆ After cystoscopy, all subjects completed the State-Trait Anxiety Inventory-S (STAI-S, 20-80) form and assessed their degree of pain, distress by the visual analog scale (VAS, 0–10).



<Schema of the study>

RESULTS

Parameter	Heating pad (n=37)	Control (n=37)	p-value
Demographics			
Age (yr)	61.1±11.5	61.1±12.1	0.758
Body weight (kg)	56.9±8.6	54.4±8.7	0.270
Duration of procedure (min)	8.3±2.1	8.6±2.8	0.641
Pre-procedural parameters			
Systolic BP (mmHg)	133.2±17.2	129.2±17.1	0.341
Diastolic BP (mmHg)	81.6±10.1	80.3±11.7	0.493
Pulse rate (beats/min)	80.3±12.6	80.9±10.3	0.592
STAI-S	57.2±9.4	54.6±12.8	0.452
Post-procedural parameters			
Systolic BP (mmHg)	130.5±14.9	135.7±16.4	0.103
Diastolic BP (mmHg)	82.4±11.4	86.0±10.4	0.185
Pulse rate (beats/min)	78.7±11.7	83.0±10.3	0.104
Pain (VAS)	3.8±1.6	6.4±1.9	<0.001*
Distress (VAS)	3.8±1.8	6.3±2.1	<0.001*
STAI-S	33.1±10.1	48.2±11.1	<0.001*
STAI-S (δ)	21.1±12.4	6.4±12.6	<0.001*

Table 1. Baseline characteristics and anxiety, pain, and distress scores in female patients according to using a heating pad during cystoscopy.

- ◆ Mean age, procedure duration, pre-procedural pulse rate, systolic, diastolic blood pressure showed no statistical difference between the groups.
- ◆ The mean anxiety level (STAI-S), pain and distress score (VAS) was significantly lower in the heating pad group than in the control group.
- ◆ Degree of decrement of level of anxiety with the STAI-S (δ) in experimental group and control group differed significantly.
- ◆ Post-procedural pulse rate, systolic, diastolic blood pressure showed no statistical difference between the groups.

CONCLUSIONS

- ◆ Female patients using a heating pad on the sacrum experienced less anxiety, pain, and distress during invasive rigid cystoscopy.
- ◆ Using a heating pad on the sacrum of female patients during cystoscopy is a non-invasive, nonpharmacological, safe, simple, and effective intervention.
- ◆ Using a heating pad on the sacrum of female patients during cystoscopy also resulted in increased patient's comfort, and satisfaction.