

INPLASY

Electrical Stimulation on Urinary Incontinence After Radical Prostatectomy: a systemic review and meta-analysis

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 10 December 2024 and was last updated on 10 December 2024.

INTRODUCTION

Review question / Objective Electrical Stimulation combined with Pelvic floor Exercise training on Urinary Incontinence After Radical Prostatectom.

Condition being studied With increasing incidence of prostate cancer in male genitourinary system, radical prostatectomy (RP) is standard of treatment choice in specific papulation according to tumor behavior. Even with improvements of the surgical instrument and technique, urinary incontinence (UI) after RP is a common and affect patient's quality of life. The incidence of urinary incontinence can be as high as 6% to 20% and seriously affect the quality of life of patients. ES is believed to be more effective in patients who are initially unable to identify and contract the correct pelvic floor muscles, and its use may enhance the success of PFMT for incontinence. In recent years,

the beneficial effect of ES plus PFMT on urinary incontinence after RRP had been revealed with better outcome. However, there are not review or analysis of effect of ES plus PFMT.

METHODS

Search strategy The PubMed, Embase, Cochrane Library databases were searched for all relevant studies published as of July 2024 using MeSH terms and free-text terms including the following: Prostatectomy AND urinary incontinence AND electric stimulation.

Participant or population Patients had radical prostatectomy present with incontinence and received electric stimulation after surgery.

Intervention Electric stimulation with pelvic floor muscle training.

Comparator Pelvic floor muscle training.

Study designs to be included Randomized controlled trial, cohort study, meta analysis, review.

Eligibility criteria Studies eligible for inclusion met the following criteria: (1) studies of patients had radical prostatectomy present with incontinence and received electric stimulation after surgery(2) studies comparing electric stimulation with/without pelvic floor muscle traing (3) studies examining the clinical outcomes associated subjective and objective of incontinence.

Information sources PubMed, Embase, Cochrane Library databases.

Main outcome(s) ICIQ-SF score, pad test.

Quality assessment / Risk of bias analysis For studies that fulfilled the inclusion criteria, two review authors (WMJ and CCL) independently extracted information on study design, study dates, setting, country, participant characteristics, intervention details, comparisons, outcomes, funding sources, and conflict of interest. N No additional information beyond the published data was required. The risk of bias for RCTs was assessed using a recently developed version of the Cochrane 'Risk of bias' tool (RoB 2). Both WMJ and CCL independently evaluated the risk of bias and study quality, with a focus on the impact of the intervention assignment.

Strategy of data synthesis The data were summarized using a random-effects model. The Review Manager 5.4.1 software (Cochrane Collaboration, Copenhagen, Denmark) was used for the statistical analyses. the risk ratio (RR) with a 95% confidence interval was calculated. Heterogeneity was assessed by visually inspecting the forest plots for overlap of confidence intervals and by calculating the I^2 statistic. When heterogeneity was detected, efforts were made to explore its potential causes through subgroup analysis. Additionally, the small study effects could not be assessed using a funnel plot since there were less than ten included studies in each comparison.

Subgroup analysis None.

Sensitivity analysis None.

Language restriction Only English.

Country(ies) involved Taiwan.

Keywords Prostatectomy, urinary incontinence, electric stimulation.

Contributions of each author

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