ISRCTN71783061 https://doi.org/10.1186/ISRCTN71783061

Effect of sling insertion angle on surgical outcomes in women with stress urinary incontinence

Submission date
07/04/2026

Recruitment status
No longer recruiting

Registration date
10/04/2026

Overall study status
Completed

Last Edited
10/04/2026

Condition category
Urological and Genital Diseases

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Stress urinary incontinence (SUI) is a common condition that affects women's quality of life. Single-incision midurethral sling surgery is widely used to treat SUI. However, it remains unclear whether the angle at which the sling is inserted influences surgical outcomes. This study aims to evaluate whether different sling insertion angles affect treatment success and quality of life.

Who can participate?
Women aged 18 to 80 years with urodynamic stress urinary incontinence undergoing single-incision midurethral sling surgery

What does the study involve?
Participants are grouped according to the angle of sling insertion during surgery. Clinical outcomes, including symptom improvement and quality of life, are assessed after surgery.

What are the possible benefits and risks of participating?
As this study involves analysis of previously collected data, there are no direct risks or benefits to participants. The findings may help improve surgical techniques and patient outcomes in the future.

Where is the study run from?
Shin Kong Wu Ho-Su Memorial Hospital (Taiwan)

When is the study starting and how long is it expected to run for?
October 2017 to October 2019

Who is funding the study?
Investigator initiated and funded

Who is the main contact?
Dr Wan-Ru Yu, M015653@ms.skh.org.tw

Contact information

Type(s)
Public, Scientific, Principal investigator

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Additional identifiers

Study information

Scientific Title
Sling insertion angle influences surgical outcomes and quality of life after single-incision midurethral sling surgery for female stress urinary incontinence: a prospective cohort study

Study objectives
To evaluate the effect of sling insertion angle on surgical outcomes and quality of life in women undergoing single-incision midurethral sling surgery for stress urinary incontinence.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 07/04/2026, Shin Kong Wu Ho-Su Memorial Hospital Institutional Review Board (Shin Kong Wu Ho-Su Memorial Hospital No. 95, Wen Chang Road, Shilin District, Taipei, 111, Taiwan; +886 (0)2 2833 2211; irb@ms.skh.org.tw), ref: 20260203R

Primary study design
Interventional

Allocation
Non-randomized controlled trial

Masking
Open (masking not used)

Control
Active

Assignment
Parallel

Purpose
Treatment

Study type(s)

Health condition(s) or problem(s) studied
Stress urinary incontinence in women

Interventions
Participants underwent single-incision midurethral sling surgery using the ContaSure Needleless system. Two surgical techniques were compared: acute-angle insertion (<45 degrees) and standard-angle insertion (approximately 45 degrees toward the obturator foramen).

Intervention Type
Procedure/Surgery

Primary outcome(s)
1. Objective cure rate measured using negative cough stress test and no requirement for additional anti-incontinence treatment at 6 months postoperatively

Key secondary outcome(s)
1. Objective cure rate measured using negative cough stress test and no requirement for additional anti-incontinence treatment at 1 and 3 months postoperatively

2. Voiding difficulty measured using the presence of postoperative voiding symptoms or need for catheterization at within 6 months postoperatively

3. Quality of life measured using the Incontinence Quality of Life (I-QOL) questionnaire score at 6 months postoperatively

Completion date
31/10/2019

Eligibility

Key inclusion criteria
Women diagnosed with urodynamic stress urinary incontinence with a preoperative 1-hour pad test greater than 10 g

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
80 Years

Sex
Female

Total final enrolment
184

Key exclusion criteria
1. Detrusor overactivity
2. Mixed urinary incontinence with a predominant urge component
3. Voiding dysfunction
4. Prior pelvic surgery for urinary incontinence
5. Neurologic disease affecting bladder function
6. Pelvic organ prolapse stage III or higher

Date of first enrolment
01/10/2017

Date of final enrolment
31/10/2019

Locations

Countries of recruitment
Taiwan

Sponsor information

Organisation
Shin Kong WHS Memorial Hospital

ROR
https://ror.org/04x744g62

Funder(s)

Funder type

Funder Name

Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available