2018 Annual Meeting of the International Continence Society

Contents:

1. Therapeutic effect of electro-acupuncture treatment to patients with fecal incontinence who have poor improvement after 6 months of conventional conservative treatment: a pilot study

   Siu C1, Li JFP1, Tsang SF1, Fung CW1, Lau YY2, Tang SF2, Yam KM2
   1. Physiotherapy Department, Kwong Wah Hospital, Hong Kong SAR
   2. Surgical Department, Kwong Wah Hospital, Hong Kong SAR

2. Revolution of surgical treatment modality for urodynamic stress incontinence

   Dr. Chan Yuen Mei, Toby, Associate Consultant, Department of O&G, QEH

Editorial Board:
Hui Peggy (Editor-in-chief)
Tong Wai Mei Anny (Contributing editor)
Dr. Leung Man Fuk (Consultant)
**Therapeutic effect of electro-acupuncture treatment to patients with fecal incontinence who have poor improvement after 6 months of conventional conservative treatment: a pilot study**

Siu C¹, Li JFP¹, Tsang SF¹, Fung CW¹, Lau YY², Tang SF², Yam KM²
1. Physiotherapy Department, Kwong Wah Hospital, Hong Kong SAR
2. Surgical Department, Kwong Wah Hospital, Hong Kong SAR

**Introduction**

Fecal incontinence (FI) is an unpleasant and embarrassed experience affecting a substantial portion of the population. According to epidemiological data, more than 60% of patients after the lower anterior resection surgery for rectal cancer and around 15.6% of general population aged older than 80 suffered from FI in Hong Kong. FI becomes their life-long companions if conventional conservative measures including pelvic floor muscle exercises and behavioral modification failed. We utilized a cost effective electro-acupuncture treatment (EA) on FI patients and investigated its effectiveness in this study.

**Objectives**

To explore the therapeutic effect of EA to subjects with FI who have poor improvement after 6 months of conventional conservative treatments.

**Inclusion criteria**

Subject persists FI after 6 months of conventional conservative treatments

**Exclusion criteria**

➢ Subjects having conventional treatment/ completed conventional treatment within 6 months
➢ Subject had received electrical stimulation/ percutaneous tibial nerve stimulation for FI before
➢ Subject has cardiac pacemaker/ lower limb metal implant
➢ Subject is pregnant/ plans to become pregnant
Methods
EA was delivered once per week for 12 weeks. 1.5 cun needle was inserted to SP 6 with soreness sensation and electro-pad was placed on sole of the same side. Square-shaped waveform electrical stimulation with 20Hz and 200s pulse width was applied for 30 minutes.

Outcome measures
FI frequency per week, WexnerScore, validated Chinese Version of Fecal Incontinence Quality of Life Scale (FIQL), pelvic floor muscle power & endurance and Numeric Global Rate of Change Score (NGRCS) were collected in pre treatment, post treatment, 6-month post treatment and 1-year post treatment.

Results
5 subjects (4 females & 1 male; mean age: 56.8 years old: FI duration: 2.5 years) were assessed.

<table>
<thead>
<tr>
<th></th>
<th>NGRCS</th>
<th>FI Freq/week</th>
<th>Wexner Score</th>
<th>Lifestyle (FIQL)</th>
<th>Coping (FIQL)</th>
<th>Depression (FIQL)</th>
<th>Embarrassment (FIQL)</th>
<th>PFM power</th>
<th>PFM endurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre EA</td>
<td>/</td>
<td>12.7</td>
<td>13.1</td>
<td>2.6</td>
<td>2.3</td>
<td>2.5</td>
<td>2.1</td>
<td>1.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Post EA</td>
<td>6.2</td>
<td>0.8*</td>
<td>11.2</td>
<td>2.2</td>
<td>1.8</td>
<td>2.3</td>
<td>2.2</td>
<td>1.7</td>
<td>5.5</td>
</tr>
<tr>
<td>6-month post EA</td>
<td>3.7</td>
<td>2.8*</td>
<td>10.7</td>
<td>1.2*</td>
<td>0.7*</td>
<td>1.6*</td>
<td>1*</td>
<td>1.7</td>
<td>5.8</td>
</tr>
</tbody>
</table>

*p value <0.05

Conclusion
The promising result indicates the new EA setup may be an alternative modality in the management of patients with FI who resist to conventional conservative treatments.
Urinary incontinence is a common clinical condition affecting 69% of female population but still under-reported due to embarrassment. Stress urinary incontinence (SUI) is the most common type of female urinary incontinence. The International Continence Society has defined stress urinary incontinence as the involuntary leakage of urine upon effort or exertion, sneezing or coughing. Urodynamic stress incontinence (USI) is a solely urodynamic diagnosis, defined as involuntary leakage of urine during filling cystometry, upon increased intra-abdominal pressure, in the absence of a detrusor muscle contraction.

From the literature, the reported prevalence of stress urinary incontinence (SUI) in Hong Kong is 40%. The increasing demand is expected with rapidly growing aging population in Hong Kong. It is understood that urinary incontinence causes limitation in employment & leisure opportunities. SUI significantly deteriorates a woman’s quality of life and sexual dysfunction, also impairing partner’s sexual function. Nevertheless, the problem will pose a financial burden on medical care system including conservative and surgical management.

In the past, open colposuspension which was developed in 1660s, was the surgical procedure with continence rate 85% but the effectiveness declined over time. It was associated with voiding dysfunction 10%, denovo detrusor over-activity (DO) 17% as well as enterocoele & rectocele 14%.

The surgical treatment of USI has been revolutionized by the introduction of mid-urethral sling with tension-free vaginal tape (TVT) in 1996 by Ulsten & Petro. TVT is a sub-urethral sling inserted vaginally at the level of mid- urethra in retropubic approach with exit point suprapubically and avoid placing urethra under tension. TVT is shown to have similar effectiveness when compared with colposuspension but with fewer complications such as 2% voiding dysfunction and 5% Denovo DO.

TVT as a minimal invasive & cost-effective procedure performed in local or regional anaesthesia in day surgery centre has undertaken colposuspension as the most popular continence procedure by 2001. In 2006, The National Institute for Health & Clinical Excellence (NICE) in United Kingdom has recommended TVT as the first line procedure for USI with continence rate 85%. The European Association of Urology (EAU) guidelines state tension-free mid-urethral sling as grade A recommendation for surgical treatment of urinary incontinence.

The trans-obturator tape (TOT) as the second generation procedure which tape inserted in horizontal plane underneath the middle urethra between two obturator foramen without suture fixation, was developed in 2001 by Delorme. It maintains the principle of a minimally invasive procedure to reinforce the support to urethra, while avoiding blind entry to retro-pubic space. It therefore reduces the risk of injury to internal organs such as bladder, intestine, major vessels and nerves.
There are 2 techniques for insertion of trans-obturator tape. In the trans-obturator tape with the outside-in technique (TOT), after the initial anterior vaginal incision and dissection, the tape is introduced from the skin on the obturator foramen and comes out in vaginal incision. In the TVT-O technique, the needle is passed in reverse route, i.e., in from vaginal incision & out through the obturator foramen (inside-out)\textsuperscript{13}.

In the last decade, several publications have demonstrated long term efficacy of tension free vaginal tape. Nilsson et al reported the objective and subjective rate 90\% & 77\% respectively in 11-year follow-up in 90 women in prospective study\textsuperscript{14}. Olsson et al also showed similar objective cure rate 84\% & subjective cure rate 77\% in 147 recruited patients with TVT in retrospective follow-up for 11.5 years\textsuperscript{15}. Aigmueller from Austria also reported 10-year objective cure rate of 84\% in 210 patients undergoing TVT\textsuperscript{16}. Also, there were reports of complications such as bladder perforation, voiding difficulty, tape erosion, de novo detrusor over-activity, bleeding and haematoma.

A meta-analysis reported tape erosion rate 1.1\% in TVT procedure while 1-1.6\% in TOT procedure\textsuperscript{17}. Erosion rate is directly related to the biomechanical properties of the tape and to local factors such as tissue healing and infection. The risk of failure of TVT is higher in those high risk groups such as pre-existing DO, voiding difficulty with low peak flow rate & high Pdet, low urethral closure pressure, scared vagina with decreased urethral mobility, neuropathic bladder and detrusor hypercontractility.

For local experience, our department demonstrated the objective cure rate 90\% and subjective cure rate 93\% in 8-year follow-up in 73 patients in prospective study. The complications included 4\% bladder perforation, 2\% voiding dysfunction requiring tape incision\textsuperscript{18}.

In conclusion, Cochrane in 2015 has established good safety profile and highly effectiveness in short term (1yr) & medium term (1-5years) of mid-urethral sling operation for stress urine incontinence in women. No statistically difference in subjective cure rate between transobturator group (62-68\%) and retropubic group (71-97\%). Both types (TOT and TVT-O) showed similar in efficacy and outcome\textsuperscript{19}.

Reference
1) TOG 2015
3) Haylen BT et al, International urogynaecological association; international continence society; an international urogynaecological association (IUGA)/International continence society(ICS) joint report on terminology for female pelvic floor dysfunction. Neurourology and Urodynamics 2010;29(1)4-20.
8) DH, UK
18) YM Chan, WC Cheon, WY Chan, WM Tong et al, Long term results of TVT for urodynamic stress incontinence in Chinese women at 8 yr follow-up: a prospective study, HKJGOM 2013; 13(1) 85
2017 ASM & AGM of Hong Kong Continence Society

Chairman Dr. Leung Man Fuk on the stage

Surgical treatment of stress urinary incontinence presented by Dr. Toby Chan

Nursing management of pelvic organ prolapse – using vaginal pessary presented by Ms Anny Tong

鄧思敏註冊中醫師講解尿頻便秘之中醫處理

Therapeutic effect of electro-acupuncture treatment to patients with faecal incontinence who have poor improvement after 6 months of conventional conservative treatment presented by Mr Cheetham Siu
President: Dr Leung Man Fuk
Vice-President: Dr. Leung Wai Yip, Michael
Honorary Secretary: Ms Amy Lau
Honorary Treasurer: Dr. Tong Bing Chung
Webmaster: Dr. Tam Cheuk Kwan

Council members:
Ms. Chan Sau Kuen
Dr. John Fenn
(Representative at FMSHK)
Dr. Cecilia Cheon
Ms. Ip Kam Tin
Ms. Lam Mo Ching
Ms. Hui Ngor Peggy
(Newsletter Editor)
Ms. Tong Wai Mei Anny
(Newsletter Editor)
Dr. Luk Lai Yin
Dr. Ho Kwan Lun
Ms. Fung Kim Yook, Brigitte
Ms. Connie Tang
Ms. Kwok Choi Fung
Co-op Ms Chung Ying Ying

~ END ~