

Efficacy of the Autologous Fascial Sling in the Neuropathic Population

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Background and Aims

- The incidence of stress urinary incontinence in the neuropathic population is unknown yet presents a significant disabling factor with a profound impact on quality of life.
- The autologous pubovaginal sling (PVS) produces increased bladder outlet resistance during episodes of increased intra-abdominal pressure.
- Efficacy of the procedure is well established in the non-neuropathic population however evidence for use in female neuropathic patients is limited.
- We performed a retrospective review of all female neuropathic patients in our unit undergoing autologous PVS insertion to evaluate its efficacy and rate of complications.

Patients and Methods

- 14 female patients with a median age of 49 underwent insertion of autologous PVS in a single specialised spinal injury unit between 2/6/15 to 3/10/17
- Median age was 49 (range 19-80)
- All patients had undergone urodynamics preoperatively confirming stress urinary incontinence with a median bladder capacity of 467ml (range 123ml-600ml)
- Three patients had significant sacral pressure sores which were slow to heal in part due to severe incontinence

RESULTS

- Mean length of stay was 2.5 days (range 1-21)
- 7 patients had additional planned procedure during sling insertion (two botulinum toxin A injections, one cystolithopaxy, one insertion of SPC, two vaginal hysterectomy and one anterior vaginal repair)
- There were two clavian-dindo grade III-IV post-operative complications (14.3%)
- Mean pad use decreased from 5 pads per day preoperatively to 0.23 post-operatively (11 were completely dry i.e. no pads (78.6%) and 3 improved (21.4%))
- Mean ICIQ-UI score decreased from 17 to 0 and all patients were subjectively happy following the procedure
- All patients required either intermittent or suprapubic catheterisation post-operatively as expected
- Three patients developed de novo neurogenic detrusor overactivity which was managed with anticholinergics.
- The three patients with sacral pressure sores had an uncomplicated recovery following surgery - 2 continued with non-surgical management and subsequent healing of their pressure sores which had been impaired by the SUI.

Patient	Age	Injury	Mobility	Bladder Management	Previous SUI Surgery	Treatment for NDO
1	41	Disc Surgery L4/5	wheelchair	SPC		
2	80	T12 Asia A SCI	wheelchair	SPC		Anticholinergics
3	75	T6 Asia A SCI	wheelchair	SPC		Botox
4	34	Disc surgery L5 incomplete	ambulant	SPC		Anticholinergics
5	45	Congenital anorectal abnormality	ambulant	ISC		Botox
6	53	Disc Surgery CES	ambulant	ISC	Colposuspension	Botox
7	59	T10 incomplete AV malformation	wheelchair	ISC	Colposuspension	
8	26	Intracranial Hypertension	ambulant	Spontaneous		
9	65	Multiple Sclerosis	wheelchair	SPC		Botox
10	43	Disc Surgery L4/5	crutches	ISC		Anticholinergics
11	19	Malignant Cord Compression (CES)	ambulant	ISC	AUS	
12	34	Transverse Myelitis	wheelchair	SPC		Botox
13	49	L3/4 Spinal Fusion Surgery/ Spina Bifida	wheelchair	ISC		
14	51	T12 Asia A Disc Surgery	wheelchair	SPC		Anticholinergics

CONCLUSIONS

- In our cohort of patients 100% had a good outcome with 78.6% completely dry and the remainder substantially improved, with complication rates comparable to those reported in the literature (14.3%)
- The autologous pubovaginal sling is a safe and efficacious surgical treatment for neuropathic stress incontinence with an acceptable morbidity profile and good patient satisfaction.

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