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Singh G[1], Menzes B[1], Young C[1]
1. *Walton centre for neurology and neurosurgery*

EPIDEMIOLOGY AND OUTCOME ANALYSIS WITH A SINGLE STOP MULTIDISCIPLINARY NEURO-UROLOGY CLINIC.

Hypothesis / aims of study

Patients with chronic neurological conditions have urological manifestations which we suspect may be poorly managed or ignored. The aim of this study is to look at the referral pattern, urological manifestations and outcome, when patients with unresolved urinary symptoms due to chronic neurological disease are managed in a single stop multidisciplinary neuro-urology clinic.

Study design, materials and methods

In January 2000 we set up a monthly multidisciplinary neuro-urology clinic, staffed by a consultant urologist, neurologist, neuro-surgeon and a continence nurse practitioner. This is a tertiary clinic and patients with complex urological problems were received from consultant medical practitioners. The medical records of all patients attending this clinic over a 5 year period (Jan 2000 – Dec 2004) were retrospectively reviewed; the neurological aetiology, urological symptoms, investigations, intervention and outcomes have been assessed.

Outcome was assessed by clinicians not associated with the setting up and running of this clinic; to ensure validity this was done additionally and independently by 2 different research clinicians and categorised to:

Good outcome: with prolonged or permanent resolution of urinary symptoms.

Some positive outcome: some relief but early recurrence of urinary symptoms.

Unsatisfactory outcome: with no obvious benefit or symptom relief.

Results

109 patients attended the clinic over the 5 year period. The mean age at presentation was 42.95 years (17-69) and male female ration was 1: 1.6.

Multiple sclerosis (MS) accounted for nearly 60% of our patients; while vascular, post-traumatic & post operative causes made up 25%; other causes included infections, malignancy and congenital.

Presenting urological symptoms included frequency, urgency and incontinence; recurrent infections, catheter related problems and sexual dysfunction.

Most investigations could be done on site at the clinic and the details are tabled:

Investigation performed	No of cases (% of total)	Abnormal tests (% of investigated)
Bladder scan	57 (52.3%)	49 (86.0%)
Video Urodynamics	31 (28.4%)	27 (87.1%)
KUB x-ray	13 (11.9%)	5 (38.5%)
Flexible cystoscopy	13 (11.9%)	8 (61.5%)
PSA measurement	7 (6.4%)	1 (14.3%)
Intra-venous urogram	1 (0.9%)	0 (0.0%)

Interventions undertaken through this clinic included medication change; catheter related & surgical interventions:

Intervention	No of cases (Percentage of total)
Drug changes	73 (70%)
Catheter-related interventions - Intermittent self-catheterisation - Supra-pubic catheter insertion - In-dwelling catheter insertion - Other catheter events - Convene catheter application	79 (72.5%) 45 (41.3%) 13 (11.9%) 5 (4.6%) 13 (12%) 3 (2.8%)
- Surgical procedures: Intravesical Botox: Bladder Stone management : Others - Sphincterotomy, Detrusor myomectomy Supra vesical Diversion & Baclofen pump	14 (12.8%) 7 3 1 each
Other interventions - Pelvic floor exercises, Bladder training - Bladder stimulator, Bladder washout -Vacuum devices /Caverject Assurance	64 (58.6%)

A good outcome was obtained in 90 patients (82.6%) whereas 12 patients (11%) had some positive outcome and 7 (6.4%) had an unsatisfactory outcome. This is based on the judgement of the referring clinician and assessed independently by 2 clinical researchers from the medical records. As a single stop clinic this worked well, with 65 patients (59.6%) attending once and with intervention a good outcome in 56 (89%).

Interpretation of results

Most patients with neurological disorders develop neurogenic lower urinary tract dysfunction (1) and it is important to identify and manage these before irreversible changes occur; specialist spinal units deal with traumatic injuries in a holistic manner and this includes urological management (2). However as is clear from the referral pattern, patients with MS, head injuries, vascular and post operative neuropathy are disadvantaged and this clinic served this need. Most such patients have debilitating urological symptoms requiring specialist management; the percentage of abnormal results picked up on investigation suggests this. Simple measures including pharmacotherapy, catheter management including intermittent catheterisation resulted in a satisfactory outcome with regards to the urological symptoms in a majority. Most patients attended only once, had their investigation on the day and a management plan was discussed.

Concluding message

Our joint multidisciplinary (3 medical consultants & a nurse consultant) clinic has resulted in a reduction in number of attendances; and good outcome for a difficult complex group of neurological patients.
We recommend this approach resulting in prompt, satisfactory management.

References

1. J. Neurol. Neurosurg. Psychiatry (1992): 55; 986-989.
2. Paraplegia (1995): 33; 326-329.

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