

## **LONGER TERM ASSESSMENT OF TREATMENT OF THE OVERACTIVE BLADDER BY DETRUSOR MYECTOMY WITH SPECIAL REFERENCE TO POST-PUBERTAL NOCTURNAL/DIURNAL ENURESIS.**

### Hypothesis / aims of study

To assess the results of detrusor myectomy in three groups of patient with detrusor overactivity – persistent congenital overactivity; idiopathic overactivity in the female; and in selected neuropaths, with a follow up of one to eleven years.

### Study design, materials and methods

Between August 1994 and March 2005 sixty-two patients underwent detrusor myectomy for refractory detrusor overactivity. Forty-four females and eighteen males. Twenty-five had persistent post-pubertal congenital detrusor overactivity; twenty were neuropaths and seventeen, all female, had idiopathic detrusor overactivity. All patients had failed conservative therapy; all had at least 50% of the detrusor muscle removed with omental cover of the denuded urothelium being mandatory.

Initially, all patients were restudied at three months post-surgery, but as it became clear that symptomatically most patients who benefited continued to do so for at least twelve months, most patients were studied at one year and subsequently by flow rates and post-void residuals. (PVR). A sub-set of patients with congenital and idiopathic overactivity had muscle strips assessed in water/baths from the removed detrusor.

### Results

Much the best results were achieved in the congenital group. Twenty-two of the twenty-five patients had an excellent symptomatic outcome, and only five remained (less) overactive urodynamically. Initially, one female had to self-catheterise (SIC) though subsequently four others needed to SIC after two or more years. A PVR of up to 200 ml was taken as acceptable. The idiopathic group was the most disappointing. Only five had any substantial lasting benefit. Five have to catheterise and are still urge incontinent; no-one over fifty years of age had any benefit at all.

The neuropaths also did poorly. Of the nine with acquired disease, usually multiple sclerosis, only one achieved lasting benefit. Of the congenital uropaths (eleven) only three have been trouble-free, partly because of persisting incontinence, and partly because of artificially urinary sphincter problems (eight).

Of interest, despite very similar urodynamic findings pre-operatively, muscle strips from the congenital and idiopathic groups behaved quite differently in the water bath.

### Interpretation of results

The results in the idiopath and neuropath are much less good in the longer term than in their earlier assessment seven years ago.

### Concluding message

Detrusor myectomy is a technically tedious procedure, and in the neuropath difficult, and in some (for example those with an indwelling catheter before surgery) impossible. Although our results are somewhat at odds with other authors, the younger idiopath usually responds to medication, and over the rather arbitrary age of fifty, none have benefited from detrusor myectomy. The congenital neuropaths, although carefully selected (good capacity and low leak point pressure) have been disappointing in the longer term, and the acquired neuropaths disastrous, and we have done no cases in these groups for six years. The congenital nocturnal/diurnal enuretics (in whom the surgery is much easier) have done remarkably well, and since they never respond to medication, we continue to offer this group myectomy with a high prospect of success for a socially devastating condition, without the risks of augmentation cystoplasty.

**FUNDING: NONE**

**DISCLOSURES: NONE**

**HUMAN SUBJECTS: This study did not need ethical approval because because this technique was already established but followed the Declaration of Helsinki Informed consent was obtained from the patients.**