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THREE MONTH RESULTS FROM THE URGENT PILOT STUDY: A RANDOMISED CONTROLLED TRIAL COMPARING DRUG THERAPY, BLADDER RETRAINING AND THEIR COMBINATION IN PATIENTS WITH URGE URINARY INCONTINENCE.

Hypothesis / aims of study

Cochrane Collaboration systematic reviews have suggested similar effects for anticholinergic drugs, and bladder retraining (1,2). Direct comparisons have found no major differences (3,4), and so there is still uncertainty about the relative place of these treatments for Overactive Bladder (OAB). The URGENT study, a large randomised controlled trial has been proposed to compare these treatments and their combination. This abstract reports the 3 month results from the pilot trial for the URGENT study. Specific aims were to test the procedures for the study, determine recruitment and retention issues, and obtain information for a power calculation for the main study.

Study design, materials and methods

The URGENT pilot study is a randomised controlled trial with three arms, drug therapy, bladder retraining, and the combination of drug therapy and bladder retraining. Outcomes are to be measured at both three months and 12 months.

All women over 18 years with predominant urge urinary incontinence and at least monthly leakage were eligible provided they had no contraindications to anticholinergic drugs. They were recruited from the local urogynaecological clinic, GPs, and advertisements. A research student did preliminary screening, then eligibility was confirmed by a urogynaecologist. After formal consent, participants were randomly allocated, using a password protected web page that remotely accessed a computer-generated randomisation list. Because of the nature of the treatments blinding was not possible.

Drug treatment was by immediate release oxybutynin 2.5 mg once per day increasing to 5 mg 3 times a day depending on effectiveness and side effects. Bladder retraining comprised strategies to increase voiding interval and suppress urge. All women were offered advice about good bladder habits.

The primary outcome was a condition specific quality of life scale (OAB-q), secondary outcomes were subjective bladder problems measured with a visual analogue scale (VAS), frequency and leakages measured by bladder diaries, and a generic health status measure, the SF12.

Five months recruitment was planned, as there was no prior information on which to base a power calculation. Statistical analysis was by way of a oneway analysis of variance, or analysis of covariance when adjustment was done for baseline values.

Results

Between February and June 2003 120 women expressed an interest in participating. Forty-seven did not meet the inclusion criteria, 27 due to predominant stress incontinence. Fourteen eligible women declined to participate, eight of whom did not want to take drugs. Thus 57 were randomised, 21 to bladder retraining, 17 to drug therapy, and 19 to the combination treatment. Of these 47 (82%) were self referred from the advertisements, 8 (14%) came from the clinic and 2 (4%) came from GPs.

Table of baseline data.

	Combination group (n=19)	Bladder retraining (n=21)	Drug therapy (n=17)
Mean age (±SD), years	47.6 ± 16.3	53.8 ± 14.8	63.9 ± 17.2
Mean duration of UUI ± SD, years	3.8 ± 2.9	8.1 ± 7.1	3.2 ±5.5
Leakage frequency ≥1 per day, n (%)	10 (53)	13 (62)	6 (40)
Concurrent stress incontinence, n (%)	7 (47)	1 (6)	2 (17)
Premenopausal, n (%)	9 (47)	7 (33)	3 (19)
Self referred from advertisement, n (%)	15 (79)	17 (81)	14 (88)

At three months data was available on 46 (81%), 18/21 from bladder retraining, 16/17 from drug therapy, and 12/19 from the combination.

Table of outcome data (data are mean ± standard deviation)

	Baseline			Three months		
	Combination group	Bladder retraining	Drug therapy	Combination group	Bladder retraining	Drug therapy
OAB-q score	72 ± 22	73 ± 17	70 ± 25	92 ± 7	82 ± 16	90 ± 16
Bladder problem VAS (higher better)	—	—	—	68 ± 12	55 ± 21	71 ± 18
Voids per day	8.5 ± 2.4	8.3 ±2.0	8.0 ± 1.7	6.8 ± 0.5	6.7 ± 0.4	6.3 ± 0.4
Voids per night	0.8 ± 0.7	1.3 ± 1.0	1.4 ± 1.0	0.7 ± 0.5	1.0 ± 0.9	0.9 ± 0.7
Urgent episodes per day	3.6 ± 2.1	4.2 ± 2.8	3.1 ± 2.2	1.7 ± 1.8	2.3 ± 2.5	1.5 ± 2.1
Leakage episodes per day	1.8 ± 1.6	2.3 ± 1.5	1.0 ± 1.1	0.6 ± 0.8	0.8 ± 0.8	0.1 ±0.7
SF-12 Physical component score	46 ± 11	49 ± 10	42 ± 12	48 ± 8	51 ± 8	42 ± 13
SF-12 Mental component score	46 ± 8	49 ± 9	53 ± 9	47 ± 8	50 ± 10	51 ± 10

At three months no differences between groups attained statistical significance. This did not change after adjustment for baseline values or confounders. At some stage during treatment 10/12 in the combination group, 3/18 in the bladder retraining group and 14/16 in the drug therapy group experienced a dry mouth. These proportions were statistically significantly different (chi-squared=21.4, df=2, p=0.000).
Using the data above, and allowing for the differences to be closer at twelve months, 500 per arm will give enough power to detect useful differences in the main study.

Interpretation of results

500 people per arm will be required to eliminate important differences between the three treatment groups. The outcome measures chosen seem likely to be important and to be capable of discriminating important differences. As expected from the small size of the study, statistical significance was not achieved on any outcome except for dry mouth. There were differences in the groups at baseline, and more withdrawals from the combination group, and these may have had an effect on the outcomes. This study confirms previous reports, which have only found small differences between these treatments.
Assuming a prevalence for urge urinary incontinence of 6%, there were approximately 3000 local women potentially eligible for the study. Only 120 (4%) of these volunteered.

Concluding message

To compare these treatments properly a large study will be required. It is unlikely that large differences in effectiveness exist between bladder training and anticholinergic drug therapy. More intense advertising may attract more of the target population.

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