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THE EFFECTS OF BLADDER TRAINING, TOLTERODINE, AND BLADDER TRAINING WITH TOLTERODINE IN FEMALE PATIENTS WITH OVERACTIVE BLADDDER; PROSPECTIVE, RANDOMIZED STUDY

Aims of Study

One of the most common lower urinary tract dysfunction in women is the overactive bladder. But there are few reports concerning the first-line treatment of choice for overactive bladder. The aim of this study is to compare the effects of the bladder training, tolterodine and bladder training with tolterodine in patients with overactive bladder as a first-line therapy.

Methods

May 2001 to December 2001, a prospective randomized study was conducted on 99 female patients with overactive bladder. Patients were treated with bladder training, tolterodine (2mg twice daily) and bladder training with tolterodine as a first-line therapy for 12weeks. The bladder training includes explanation of the pelvic anatomy and physiology, bladder inhibition by Kegel exercise whenever she feels urgency, and biweekly phone calls from the expert nurse to confirm whether she is doing bladder training well. Among these patients, 74 (bladder training:24, tolterodine:24, combined:26) were followed up for 12 weeks. The treatment efficacy was measured by micturition diary (number of frequency and nocturia), subjective urgency score (0:never, 1:rare, 2:often, 3:frequent, 4:always) and subjective perception of bladder condition (0:cured, 1:much improved, 2:slightly improved, 3:not improved, 4:aggravated) at the end of the treatment. Also we define significant improvement as perception of bladder condition < 2. Safety and tolerability were assessed from adverse events and treatment withdrawals.

Results

After 12 weeks' treatment, the mean frequency of micturition and nocturia decreased by 27.1%, 55.8% in bladder training group, 30.3%, 61.9% in tolterodine group and 32.6%, 63.2% in combined therapy group. Subjective mean urgency score decreased by 48.4%, 62.5% and 63.2% in bladder training, tolterodine and combined therapy group, respectively. Subjective perception of bladder symptom score at the end of treatment was 1.5, 1.4 and 1.3 in bladder training, tolterodine and combined therapy group, but significant improvement rates were 50.0%, 58.3% and 69.3% in bladder training, tolterodine and combined therapy group. Adverse events and withdrawals due to adverse events were 23.1%, 7.7% in tolterodine, 28.6%, 7.1% in combined therapy group and none in bladder training group.

Conclusions

Bladder training, tolterodine and combined therapy are all effective treatments in female patients with overactive bladder as a first-line therapy. There are some better effects in the combined therapy than bladder training and tolterodine monotherapy. Because of its high success rate, relatively low cost, absence of adverse event, bladder training should be included in medical therapy regimen.

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