

MIRABEGRON RELIEVES THE DEGREE OF BURDEN EXPERIENCED BY CAREGIVERS OF ELDERLY FEMALES WITH INCONTINENCE.

Hypothesis / aims of study

Overactive Bladder (OAB) and Urinary Incontinence (UI) occur about twice as frequently in women as in men and become more prevalent with advancing age. Stress incontinence is more common in younger women, whereas mixed and urge incontinence is more common in older females. The constant provision of care in elderly incontinent females is an extremely exhausting process. For the caregiver, it often leads to increased psychiatric morbidity (depression), a loss of "self", social isolation and limitations in their personal relationships. The high levels of burden observed among caregivers make them ineffective in their work, expediting the transfer of their patients to long-term care institutions [1]. This is one of the few studies, evaluating the impact of mirabegron's treatment on the degree of burden experienced by the caregivers of elderly patients with incontinence.

Study design, materials and methods

Two hundred and thirty caregivers of elderly females with incontinence were included in the study and were divided into three groups. Group A included 95 caregivers of elderly patients with various conditions (strokes, Parkinson's disease, post-operative recovery after major surgery, dementia, etc.) who did not present urinary incontinence. Group B consisted of 73 caregivers of elderly patients who presented urinary incontinence, in addition to the forementioned conditions. In this group, elderly females were treated with mirabegron 50 mg/daily. Group C, consisted of 62 caregivers of incontinent elderly patients. The patients did not wish to receive any treatment. All caregivers were evaluated with the Zarit Burden Scale (ZBS), both at the beginning and end of the study three months later. ZBS is a brief, valid and reliable method for assessing the burden experienced by those caring for a family member suffering from chronic diseases [2]. Higher scores are indicative of a greater burden on the caregiver, with a maximum of 88. Ethical approval was obtained by the Institutional Ethical Committee. Informed consent was taken by all patients and their caregivers. A probability $P < 0.05$ was considered to be statistically significant.

Results

Table 1 shows the distribution of the individual scales and of the overall caregiver burden scale in all groups, at the beginning of study. **Table 2** represents the overall caregiver burden scale after 3 months observation. At the end of the study, a significant percentage of caregivers who experienced a "severe burden" (corresponding to a score of 61-88 on the Zarit scale) were noted in Group C. Thus, while the rates are 25% in Group A and 28% in Group B, in Group C this reached 37%. In practice, it means that 1 out of 3 caregivers of elderly incontinent patients experience a severe burden.

	Mean Value (SD) Group A	Mean Value (SD) Group B	Mean Value (sd) Group C
Personal Intensity (0-36)	20.26 (7.1)	22.9 (7.9)	23.2 (8.1)
Intensity of role (0-28)	13.07 (5.2)	15.86 (5.6)	15.61 (5.5)
Deprivation of relationships (0-16)	10.24 (3.5)	11.48 (3.7)	11.03 (3.9)
Management of care (0-8)	4.32 (1.4)	4.92 (1.8)	4.44 (1.6)
Total burden scale (0-88)	47.89 (17.2)	55.16 (18.0)	54.28 (16.1)

Table 1: Distribution of the scales and of the overall ZBS at the beginning of the observation

	Mean Value (sd) Group A	Mean Value (sd) Group B	Mean Value (sd) Group C
Personal Intensity (0-36)	19.26 (7.2)	20.58 (7.3)	24.1 (7.1)
Intensity of role (0-28)	13.78 (5.1)	13.14 (5.1)	16.34 (5.2)
Deprivation of relationships (0-16)	10.29 (3.4)	10.54 (3.7)	10.89 (3.4)
Management of care (0-8)	4.04 (1.4)	4.22 (1.6)	4.84 (1.7)
Total burden scale (0-88)	47.73 (17.1)	48.48 (17.7)	56.17 (17.4)

Table 2: Distribution of the scales and of the overall ZBS at the end of the observation

Interpretation of results

At the end of the study, Group B demonstrated slightly higher rates on the Zarit scale in relation to the caregivers in Group A and a statistically significant decrease in total score ($p < 0,05$). Mirabegron treatment in Group B resulted in a reduction of incontinence episodes and number of pads needed. In Group C, the increased total score depends on the presence of incontinence. The elderly with incontinence require constant cleaning and this makes it necessary for caregiver to be with the patient all day long. The high rate of caregivers with a "severe burden" in Group C indicates the synergistic effect of incontinence with other factors creating a burden for caregivers.

Concluding message

Results of the study demonstrate that caring for a patient with incontinence is associated with an increased burden for caregivers. It also shows that incontinence is one of the factors that could predict burden, which means that incontinence treatment with a daily dose of mirabegron 50 mg represents a way to alleviate the burden of the caregivers of incontinent female patients.

References

1. Noimark D, Steventon N, Wagg A. A qualitative study of the im-pact of caring for a person with urinary incontinence. *NeuroUrol Urody* 2009;28:637-638.

2. Papastavrou E, Kalokerinou-Anagnostopoulou A, Alevizopoulos G, Papakostas S, et al. The reliability and validity of the burden scale (Zarit Burden Interview) in Greek Cypriot caregivers of patients with dementia. *Nosileftiki* 2006;45:439-449.

Disclosures

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