#405 Intermittent catheterizations in patients with dementia. Correlations of complications with the disease stage.

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ABSTRACT

AIM: To evaluate the experience of the patients with dementia and their caregivers and describe the complications of intermittent catheterization (IC) in patients with dementia. This study was performed to determine the factors that influence patient care and the outcomes for elderly patients with dementia and their caregivers. The study was also conducted to determine the best outcomes for elderly patients with dementia and their caregivers.

METHODS: This is an observational study over the complications of intermittent catheterizations (IC) in patients with dementia, in relation with the disease stage. The inclusion criteria included all patients referring to our center from December 2016 to December 2018 with a diagnosed dementia type and in any stage of the disease. The group of patients was examined with non-invasive urodynamic testing, including frequency volume chart, bladder ultrasound and uroflowmetry and according to the findings were advised therapy. Patients with a high void residual (PVR) over 150ml, without a clear bladder outlet obstruction and non eligible for invasive treatment were counseled for IC, either self-catheterization or by their caregivers. Dementia stage has been evaluated according to the Global Deterioration Scale (GDS), which determines their ability of independence in everyday activities. GDS consists of seven levels of independence; the level 1 refers to patients subjectively and objectively normal and fully independent, while level 7 refers to patients with severe dementia, needing complex care. Patients of levels 1-3 are usually totally independent and those of levels 4-7 are in need of caregiving, with the necessity of care setting to increase with the dementia stage. Eligible individuals were under surveillance for six months, focusing on their compliance with the treatment and IC complications, such as urinary tract infections (UTIs), hematuria and hospitalization. The collected data were statistically analyzed with SPSS v23.0, following the Wilcoxon test for non-parametric samples.

RESULTS: Overall 73 patients with dementia visited our center in the predefined period and finally 36 of them (mean age: 74.73 years, range: 71-77) were eligible for our study. The mean PVR was 255.5ml. The 94.4% (34 patients) of them were diagnosed with Alzheimer disease and only 2 patients had a Lewy Bodies dementia. More specifically, they were 24 men with a mean age of 73.75 years (range: 71-77) and mean PVR: 295.5ml and 12 women with a mean age of 75.71 years (range: 72-77) and mean PVR: 215.5ml. Regarding GDS classification, 20 of patients (55.6%) were at levels 1-3 and all of them were self-catheterized, while the rest 16 (44.4%) were at levels 4-7 being self-catheterized by their caregivers. Among the more independent patients, there were 14 men (70%) and 6 women (30%), while in patients with more advanced disease, there were 10 men (62.5%) and 6 women (37.5%). During the follow-up period, only one male patient in GDS level 7 abandoned treatment with IC, remaining with a permanent catheter. Among the rest 35, there were 5 cases of uncomplicated UTIs (4 in self-catheterized and 1 in dependent-catheterized patients, 3 in men and 2 in women). Furthermore, there were 16 cases of minor hematuria, all in male patients, 11 in self-catheterized and 5 in dependent-catheterized ones. None of the patients needed hospitalization. Comparing patients with a low GDS to those with a higher score, there is a statistically significant difference in the era of UTIs and hematuria, in favor of care-giving catheterization (p=0.01 and p=0.006 respectively).

CONCLUSIONS: Intermittent catheterization is a safe treatment option in dementia patients with high PVR, even in those with a high GDS. Interestingly, catheterization by care-givers seems to be safer than self-catheterization even in more independent patients.

REFERENCES


GLOBAL DETERIORATION SCALE

Stage | Patient's cognition and behavior | Clinical care setting
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1 | Subjectively and objectively normal | Independent
2 | Subjectively normal but mildly impaired | Independent
3 | Subjectively and objectively minor impairments that may not be obvious | Independent
4 | Care not to be ended or severe decline (e.g. difficulty in feeding, dressing, toileting, feeding, etc.) without intervention | Independent
5 | Care not to be ended or severe decline (e.g. difficulty in feeding, dressing, toileting, feeding, etc.) without intervention | Independent
6 | Care not to be ended or severe decline (e.g. difficulty in feeding, dressing, toileting, feeding, etc.) without intervention | Independent
7 | Care not to be ended or severe decline (e.g. difficulty in feeding, dressing, toileting, feeding, etc.) without intervention | Independent