REVIEW

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Neuropsychiatric symptoms in elderly – a short practical approach

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ABSTRACT

Life expectancy increases neurological and psychiatric pathology in the elderly. Neurocognitive disorders have an increasing incidence and therefore Alzheimer's disease and vascular dementia become a common pathology.
Delirium is a quite frequent symptom in general practice and managing agitation in elders can become challenging for the doctor, especially because of presence of comorbidity and sometimes of paradoxical reactions due to cerebral vulnerability.
Neuropsychiatric symptoms are a challenge in management of patients with neurodegenerative disorders, being a real burden for patients themselves, caregivers and medical staff.
A concise guide for managing these symptoms with non-pharmacological methods and drugs allowed in such conditions.

Keywords: neuropsychiatric symptoms, behavioral, non-pharmacological management, allowed medication

INTRODUCTION

The spectrum of neuropsychiatric symptoms is very wide, with positive and negative symptoms, and incidence correlates with severity of the disease, almost 95% of patients with dementia developing behavioral and psychological symptoms during the course of the disease (1,2), such as:

- aggression;
- agitation;
- anxiety;
- apathy;
- appetite/eating changes;
- delusions;
- depression;
- disinhibition;
- euphoria;
- hallucinations;
- irritability/emotional lability;
- motor disturbances and stereotyped behaviors;
- night-time behaviors/sleep disturbances.

Some symptoms that patients might have can get very unpleasant for caregivers (3), such as:

- irritability;
- agitation, with disruptive behaviors and aggression/screaming;
- sleep disturbances;
- anxiety;
- apathy;
- delirium;
- delusions.

There are a lot of factors that can affect appearance of these symptoms, as:

- clinical conditions: acute infections, dehydration, pain, hypoxia, constipation;
- drug induced: anticholinergics, benzodiazepines, tricyclic antidepressants;
- psychological: loneliness, frustration, inability to communicate, unfamiliarity with setting/people, changes of the environment (hospital admissions);

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- environmental: positional discomfort, disrupted routines, inappropriated light, sensory deficits, noise.

There is no need to aggressive treat all behaviors symptoms, as they are considered benign:

- when there is no harm for the patients or others;
- if the behavior is manageable and occurs for short time and infrequent;
- if behavior stops easily with an appropriate intervention;
- if it doesn't cause distress to the patient or caregivers.

Assessment implies checking conditions of appearance:

- Medical conditions: everything with an acute onset, may indicate a new medical condition which can destabilize finally patient's mental status;
- Unmet needs: hunger, thirst, pain, immobility;
- Environmental problems: light levels, roommate, over or under-stimulation.

NON-PHARMACOLOGICAL APPROACHES

Management of neuropsychiatric symptoms has several factors that are potentially modifiable (4):

- in the patient: seeking for managing all acute intercurrent medical illness, unmet needs (pain, sleep disturbances, fear, boredom) or sensory deficits;
- in the caregivers: stress, depression, emotional upset, little knowledge about the disease, prejudices and lack of social support;
- in the environment: clutter, over or under-stimulation, lack of daily routine, activity of daily life.

DICE (Describe, Investigate, Create and Evaluate) approach is a step by step plan to manage these patients, involving non-pharmacological and drug interventions (5). Anamnesis is very important, taken both from the patient and caregivers and doctor has to be patient and ask all questions needed so that finally a management plan to be implemented. Any escalation of aggression must be closely monitored, to ensure its suspension. Steps of escalation of behavioral symptoms are:

- emotional tension and restlessness in the environment,
- non-verbal signs as facial expression of contempt and disdain;
- verbal aggression in form threats of violence
- violence against objects;
- violence against persons.

To ensure de-escalation in case of tension and anxiety in such mentally disordered patients we must:

- keep physical distance;
- keep conversation going with neutral tone and allow decrease tension;
- lead patient out of the field of tension;
- act unexpectedly like using humor;
- do not debate but suggest alternatives.

There are some non-pharmacological measures that can be really effective, such as:

- environmental adjustment;
- caregiver education;
- cognitive training;
- sensory: light therapy, massage, evening spa, music therapy.

MEDICATION

Atipical antipsychotics: adverse events offset advantages in efficacy (6); they induce a 2-3 times increased cerebrovascular adverse events risk and 1-2% increased risk death (7); risperidone is the only licensed drug for treatment of aggression and delusions, but other drugs can be also used, even though adverse events may offset advantages in efficacy (6).

drug	start	range
RISPERIDONE	0.25 mg	0.5-2 mg/day
OLANZAPINE	2.50 mg	2.5-10 mg/day
QUETIAPINE	25 mg	25-100 mg
ARIPIPRAZOLE	2 mg	5-10 mg

Whenever needed to be prescribed we must (8):

- consider first non-pharmacological methods;
- assess all cardiovascular associated risk factors;
- evaluate risks and benefits for patients and caregivers;
- identify target symptoms as psychosis, hostility, aggression.

Antidepressants: there is modest evidence efficacy in dementia, the only symptom that can be favorable address is agitation, and trazodone (seroto-

nin receptor antagonists and reuptake inhibitors -SARIs) is the first choice (50-150 mg), even thought other selective serotonin reuptake inhibitors (SSRIs) may tapper agitation (citalopram – N.B. not available in our country).

Anticonvulsivants: carbamazepine and valproate can be used for a second line or in association with an atypical antipsychotic (9).

drug		
CARBAMAZEPINE	100 mg	2-4 mes a day
VALPROAT	150-300 mg	2-3 mes a day

Benzodiazepines: they reduce agitation but there are adverse effects as: falls, sedation or worsening cognition; it is better not to use them, or at least to try to use them as little as possible (10).

drug	start	max
LORAZEPAM	0.5-1 mg	4-6 mes a day
OXAZEPAM	7.5-15 mg	4 mes a day

We must not forget medication side effects (especially benzodiazepines) which can lead to:

- recent falls;
- increase in confusion;
- increased anxiety and agitation;
- excessive sleep/seems sedated or decreased sleep;
- increased unsteadiness on their feet;
- any change in their level of function.

In the same time we must be attentive to (11):

- consistent dosage of drugs through changes in body mass;
- recent increased dose or changes in timing of dose administration;
- too many associated drugs;
- low compliance or supra-dosing;
- any new medication recent established for dementia or other pathologies, causing drug interactions;
- over the counter meds which can interfere with medication;
- alcohol withdrawal.

CONCLUSIONS

- Any psychological changes in the behavior of a dementia patient has to be closely monitored and checked for any external factors that can lead to escalation, trying to correct reversible factors.
- Non-pharmacological measures must be of first choice, trying to de-escalation of behavioral symptoms.
- Atypical antipsychotics may be used, but started with low doses and titrated up to the minimum effective dose tolerated and if there is a positive response, tapering the doses and withdrawn must be done during 4 months and afterwards assessment of behavioral changes must be done at least another 4 months for identifying signs of recurrence (12).
- Benzodiazepines can be effective but it is preferable not to use them as long as side effects can be augmented by cerebral vulnerability in these patients.

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