

Methods of care and non-pharmacological treatment of delirium in elderly patients

Abstract

The occurrence of delirium in the elderly population is an indication for rapid implementation of adequate treatment. The treatment itself is not focused on administering drugs, but depends on all available knowledge about the patient such as the patient's medical history, living conditions or communication skills. Delirium is usually a result of the overlapping predispositioning and triggering factors. Prevention is based on eliminating or mitigating the conditions promoting this clinical syndrome. Non-pharmacological treatment includes: avoiding orthostatic and postprandial hypotension, maintaining physical fitness, monitoring mood disorders, especially depressive syndrome and improving cognitive functions. It is crucial to determine and address these factors among patients. Proper, relevant actions need to be implemented. This basic knowledge and appropriate involvement of caregivers (both formal and informal) are necessary to reduce the frequency, duration and severity of delirium, which develops in observed patients. Non-medical caregivers are advised to follow the rules formulated by geriatrists of proceeding with patients in order to minimize the risk of developing delirium.

Keywords: delirium, predisposing and triggering factors, methods of care, non-pharmacological treatment

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Introduction

The occurrence of delirium is an indication for rapid implementation of treatment.^{1,2} The incidence of this syndrome in the elderly population encourages the use of appropriate preventive measures. This can reduce the risk of death, slacken the development of cognitive impairment, maintain the functional capacity of older patients and reduce the number of admissions to nursing homes. The diagnostic criteria for delirium according to ICD 10 and DSM V require identification of the causes of the disorder based on an interview, physical examination and laboratory tests. Thus, they indicate at the same time the sequence of management proceeding. Determining the predisposing and trigger factors allows the selection of appropriate treatment for the elderly patient.

Delirium is an example of a clinical syndrome whose treatment is not about the use of specific drugs,^{3,4} but most of all, the use of all available knowledge about the patient, comprehensive, holistic activities regarding earlier disabilities, living conditions and communication skills.⁵

Discussion

Delirium is usually a result of the overlapping of some predisposing and triggering influences. The factors predisposing one to delirium include: age > 60 years, male gender, cognitive disorders, depression, chronic somatic diseases, neurological disorders, visual and hearing impairments, sphincter function disorders, and mobility difficulties.⁶ In older patients we usually find a combination of the above factors. Preventing delirium is based on the eliminating or mitigating the conditions that promote delirium.^{7,8}

In elderly patients, conditions associated with poorer cerebral blood flow, especially orthostatic and postprandial hypotension, should be avoided. In the case of orthostatic hypotension, wearing knee socks, ensuring an adequate sodium supply in the diet, sleeping in a reclining position, simple physical maneuvers such as leg crosses and

performing half-squats are all recommended. What is more, it is also important to avoid sudden body verticalization, long-term standing without support and taking medicines to lower blood pressure.⁹ To avoid postprandial hypotension frequently eating small meals and avoiding sudden verticalization 30-60 minutes after eating are also recommended.¹⁰ Preventing deterioration of the physical fitness of the elderly mainly includes ensuring safety of movement, i.e. removing external and internal causes of falls. This can be achieved by the use of proper room lighting. The rooms of older patients should be illuminated using motion sensors and the use of a 40-60 W night light. The use of handrails, handles as well as so-called geriatric chairs that prevent the consequences of slippery floors when getting up from a sitting position are also recommended. Narrow passages should be avoided.¹¹ Another important element of prophylaxis is the use of eyeglasses and hearing aids. Large earphones should also be avoided in places of heavy traffic (e.g. in crowded shopping centers, streets).

The early detection and treatment of depressive syndromes often occurring in old age are also actions to prevent the onset of delirium. The Geriatric Depression Scale (the 4-point version) can be used as a screening activity. This is particularly important among patients being prepared for surgery.^{12,13} Due to sleep disorders associated with depression, it is important to ensure sleep hygiene.¹⁴ It should be checked if the patient's bed, especially the mattress, is adapted to his height, body weight and physical fitness. Minimizing noise is also advisable. Silent household devices, soundproofed hospital corridors, medical equipment with volume control of audible and visual alarms are recommended.

Adapting the time of performing auxiliary activities and medical procedures to the hours of sleep and wakefulness of the patient is a very important issue. Improving cognitive functions has the effect of reducing the risk of developing delirium.¹⁵ Care should be taken by family members, co-residents of nursing homes, or possibly medical staff of medical facilities. The easiest methods of stimulating cognitive functions consist in everyday conversations with the patient

about current events, reading dailies aloud, using a calendar, listening to information services and asking questions about the patient's life are aimed at improving his concentration and attention. The above-mentioned actions for hospitalized patients should be carried out by nurses. They can remind the patient the date and the next day of the week, the place of his stay, the name of a staff member, familiarize him with the daily schedule and medications.^{16–18} These complex actions reduce the risk of development and shorten the duration of delirious symptoms.¹⁹ The delirium triggering factors include: bladder catheters, surgery, the occurrence of metabolic disorders, dehydration and drug side effects.²⁰

The first step in preventing and treating delirium is to remove the predisposing and triggering factors mentioned above. For instance, in the case of urinary tract and respiratory infections, using amoxicillin and cefuroxime due to their low anti cholinergic activity is recommended.²¹ Routine catheterization should also be avoided.²⁰ Another clinical situation predisposing to delirium is dehydration, hence starting with oral fluid replenishment is recommended.

The review of the rules made above shows that non-pharmacological treatment in delirium consists in eliminating the predisposing and triggering factors. This requires involving formal and informal caregivers in order to create a safe environment, improve communication and cooperation.²²

The rules of proceeding using catchwords, formulated by geriatrists

It is well known that geriatric textbooks propose the principles of proceeding in the treatment of dementia and delirium by formulating six recommendations:²³

- i. Searching for causes - observation - what is the reason? can this be prevented?
- ii. Limiting - to prevent the development; all known predisposing and triggering factors should be eliminated. "Looking through the patient's eyes" - how this problem look from the patient's point of view.
- iii. Modifying - caregivers adjust their behavior towards the patient to show understanding and empathy through non-verbal communication and friendly gestures, which in turn reduces stress in the patient.
- iv. Providing a safe environment - caring for the patient's safety in his incomprehensible behaviors.
- v. Drawing conclusions - analyzing the situation and drawing conclusions for the future.

Conclusion

The occurrence of delirium in the elderly should prompt quick implementation of treatment.

The incidence of this syndrome in the elderly population inclines the implementation of appropriate preventive measures.

Determining the predisposing and triggering factors that occurred in a particular elderly patient indicates the implementation of proper, relevant actions.

The conditions presented in this short text above consist of the basic minimum knowledge enabling the implementation of an appropriate way of caring and treatment of the patient.

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Conflicts of interest

Authors declare that there is no conflict of interest.

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