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Delirium in older outpatients

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Chapter 8

Summary

Little is known about delirium in older outpatients. Due to its serious long -and short-term consequences in hospitalized and nursing home patients, it was considered important to get more insight in various topics related to delirium in older outpatients. This thesis presents studies about screening instruments for, and prevalence and prognosis of delirium in this patient group.

Screening instruments

The aim of the first study (chapter 2) was to review studies that tested the diagnostic quality of rapid screening instruments for delirium. A literature search was performed in the digital bibliographies PubMed, PsycINFO and Embase. We included delirium screening instruments that could be administered in 3 minutes or less, and did not require information from (in)formal caregivers. We did not exclude on setting. Twenty-seven studies among 4,766 patients in hospitals and nursing homes were identified. Many different single and several combined screening tools had been tested. Only one study scored a low risk of bias on all assessed domains. Sensitivity of the tools varied between 17% and 100%, and specificity between 38% and 99%. Two tests had high sensitivity and high specificity in more than one study among older hospitalized patients: the OSLA and RASS. Tests of arousal seemed to perform well in patients with dementia too, but results need to be reproduced in larger populations and long-term care settings.

The aim of the second study (chapter 3) was to estimate the test accuracy of four observations, three explorations and four short tests that are commonly used in a psychiatric examination to detect attention disorders in older outpatients. The index tests were applied without knowledge of the presence of delirium. Also, a geriatrician or psychiatrist blinded to the results of the index tests determined the diagnosis of delirium. Test accuracy was calculated for the single items and combinations. “Dozing off during conversation” scored high specificity as did “Dozing off when not stimulated”, but both had low sensitivity. Diagnostic quality of the exploration questions was low. Serial 7s and WORLD spelled backwards had high sensitivity but low specificity. The best combination was MOTYB with WORLD spelled backward, but the test accuracy was still only moderate.

The aim of the third study (chapter 4) was to develop a short and sensitive questionnaire for triage of older outpatients with cognitive impairment that could be administered to a caregiver by telephone. In the first phase, we tested a pilot questionnaire with 17 items. We used the results and other information available at referral to construct the final delirium caregiver questionnaire (DCQ). During the second phase, we investigated the diagnostic quality of the final 7-item DCQ in a subsequent cohort. We found that the DCQ was test-positive in three-quarter of patients with delirium, but also in a quarter of patients without delirium. The mean number of days to the first assessment of delirious patients dropped considerably from 32 to 11. Hence, triage with the easy-to-use DCQ among patients referred for cognitive screening led to earlier assessment and higher detection rates of delirium.

Prevalence and prognosis

The aim of the fourth study (chapter 5) was to investigate the prevalence and risk factors of delirium in older outpatients with and without dementia. We assessed 444 patients referred to the memory clinic of a psychiatric hospital. We used the Delirium Rating Scale-Revised-98 and DSM-IV-TR criteria to diagnose delirium. We found a prevalence of probable delirium of 19%, and of possible delirium of 2%. The most common triggers were infection, drug

intoxication or withdrawal, and metabolic/ endocrine disturbance. Often, more than one precipitating trigger was identified, on top of multiple predisposing factors. Age and prior delirium were independent non-modifiable factors associated with an increased risk of delirium, but a diagnosis of dementia before intake was not significantly related to an increased risk of delirium at intake.

The aim of the last study (chapter 6) was to investigate the prognosis of delirium in older patients living at home. The study population consisted of 85 outpatients diagnosed with delirium. Seventeen patients had already diagnosed dementia. Three months after the diagnosis delirium consenting patients underwent a follow-up visit. We recorded delirium status (remitted or not), new dementia diagnosis, subjective cognitive functioning compared to baseline and to before delirium, level of daily functioning and place of residence. After three months, 45 (53%) had recovered from delirium, 19 (22%) had persistent/ recurrent delirium, 12 (14%) patients had died, and another 9 (11%) could not be revisited for other reasons than death. None of the re-examined patients reported that their cognitive functioning had recovered to the pre-delirium level, and the mean level of daily functioning did not improve substantially either. The rate of diagnosed dementia increased from 7% to 64%. Eighteen patients (28%) had moved to nursing home.

Conclusions and recommendations

The studies in this thesis showed that delirium occurs frequently in older outpatients referred to an outpatient clinic of a psychiatric hospital. It can be detected more often and quicker when a screening instrument for caregivers is used for triage at referral. Short tests of arousal or attention can be useful to identify delirium in older outpatients. It is important to diagnose delirium as soon as possible so adequate treatment can be started. Most outpatients with delirium could be treated at home, and the delirium remitted in almost half of patients.

Suggestions for future research include a study to validate the DCQ in different settings, such as an emergency department or a geriatric ward of a hospital. A longitudinal study with a follow-up longer than three months could show whether cognitive and daily functioning further improves if patients have more time to recover from delirium. Furthermore, studies on how delirium can be prevented in high-risk outpatients are needed.