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EARLY DETECTION OF DELIRIUM IN OLDER MEDICAL INPATIENTS: PRODROME, PREDICTORS AND MOTOR SUBTYPING

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ABSTRACT

Background

Delirium is highly prevalent, especially in older patients. It independently leads to adverse outcomes, but remains under-detected, particularly hypoactive forms. Although early identification and intervention is important, delirium prevention is key to improving outcomes. The delirium prodrome concept has been mooted for decades, but remains poorly characterised. Greater understanding of this prodrome would promote prompt identification of delirium-prone patients, and facilitate improved strategies for delirium prevention and management.

Methods

Medical inpatients of ≥70 years were screened for prevalent delirium using the Revised Delirium Rating Scale (DRS-R98). Those without prevalent delirium were assessed daily for delirium development, prodromal features and motor subtype. Survival analysis models identified which prodromal features predicted the emergence of incident delirium in the cohort in the first week of admission. The Delirium Motor Subtype Scale-4 was used to ascertain motor subtype.

Results

Of 555 patients approached, 191 patients were included in the prospective study. The median age was 80 (IQR 10) and 101 (52.9%) were male. Sixty-one patients developed incident delirium within a week of admission. Several prodromal features predicted delirium emergence in the cohort. Firstly, using a novel Prodromal Checklist based on the existing literature, and controlling for confounders, seven predictive behavioural features were identified in the prodromal period (for example, increasing confusion; and being easily distractible). Additionally, using serial cognitive tests and the DRS-R98 daily, multiple cognitive and other core delirium features were detected in the prodrome (for example inattention; and sleep-wake cycle disturbance). Examining longitudinal motor subtypes in delirium cases, subtypes were found to be predominantly stable over time, the most prevalent being hypoactive subtype (62.3%).

Discussion

This thesis explored multiple aspects of delirium in older medical inpatients, with particular focus on the characterisation of the delirium prodrome. These findings should help to inform future delirium educational programmes, and detection and prevention strategies.