EuroSciCon

9th International Conference on

Ageing Research & Geriatric Medicine

April 22-23, 2019
London, UK

Rami Aldwikat et al., J Aging Geriatr Med 2019, Volume 3
DOI: 10.4172/2576-3946-C1-005

Incidence and risk factors for acute delirium in older patients with a hip fracture

Rami Aldwikat, Pat Nicholson and **Elizabeth Manias**

[1]Deakin University, Australia

[2]The Royal Melbourne Hospital, Australia

Background & Aim: Delirium is a serious and common postoperative complication in older patients with a hip fracture. This preventable condition increases the risk of physical and cognitive decline, dementia and even death. The overall aim of the study was to examine delirium in older patients undergoing surgical fixation of a hip fracture by determining the incidence and risk factors. More specifically, the aims of the study were: To determine the incidence of postoperative delirium in older patients undergoing surgical fixation of a hip fracture; To examine the association between preoperative, intraoperative and postoperative factors and the development of delirium in the postoperative period in older patients undergoing surgical fixation of a hip fracture.

Materials & Method: A retrospective audit of medical records of patients who underwent surgical fixation of a hip fracture was conducted between June 2017 and October 2018 at a University- affiliated tertiary care hospital in Victoria, Australia. In total, 260 patients' records were included in the study. Patients' demographic, clinical and perioperative information was collected from the hospital information system registers, 'Inpatient Manger (IPM) and Electronic Content Manager (ECM) patients' medical records. Comorbidity was assessed using the Charlson comorbidity index instrument and cognitive impairment was assessed using the 4 As test (Alertness, Attention, AMT4, and Acute changes for fluctuation course) (4AT) tool. Predisposing and precipitating risk factors were compared between the patients who developed delirium postoperatively with those who did not develop delirium.

Results: The mean age of included patients was 82.1 years (SD=8.7) with 177 females (68%) and 83 males (32%) included in the study. The mean 4AT score was 1.5 (SD=1.0). Of the 260 patients, 63 patients (24.2%) were diagnosed with delirium in the postoperative period. Univariate analysis revealed that predisposing risk factors, including advanced age (p=0.0001), comorbidity (p=0.002), cognitive impairment (p=0.0001), and dementia (p=0.0001), were statistically significant factors for the development of postoperative delirium. Precipitating risk factors including; American Society of Anesthesiologist (ASA) score of 3 or more (p=0.001), antipsychotic usage (p=0.0001), preoperative paracetamol dosage (p=0.030), postoperative paracetamol dosage (p=0.006), intraoperative fentanyl dosage (p=0.006), postoperative fentanyl dosage (p=0.007), and postoperative diazepam usage (p=0.017), were statistically significant to the development of postoperative delirium. Multivariate regression analysis revealed that comorbidity (p=0.032) and cognitive impairment (p=0.0001) are independent statistically significant risk factors for the development of postoperative delirium.

Conclusion: In this retrospective study, predisposing and precipitating risk factors for the development of delirium in patients undergoing surgical fixation of a fractured hip were identified. These factors were; advanced age, comorbidity, cognitive impairment, dementia, ASA score of 3 or more, antipsychotic usage, pre and postoperative paracetamol dosage, intra and postoperative fentanyl dosage, and postoperative diazepam usage. Despite the

availability of cognitive function and delirium assessment tools in the health care setting, identification and recognition of delirium is poor. As a result, a consistent and objective approach to delirium assessment, using a validated tool, is required to identify delirium in patients postoperatively, following major orthopedic surgery, to improve quality of care and reduce poor outcomes.

Biography

Rami Aldwikat is an early career researcher and registered nurse at The Royal Melbourne Hospital in Melbourne, Australia. His professional experience in providing acute care to patients with delirium inspired him to pursue further studies in this field. Rami graduated from The University of Melbourne in 2017 with a Master of Advanced Nursing Practice, where he completed his thesis in incidence and risk factors for delirium in patients undergoing elective total hip and knee arthroplasty. Rami has previous degrees in Public Health and Clinical Nursing, specialising in perioperative, as well as over ten years as a practicing clinician through-out Australia. He is originally from Jordan. His current research with Deakin University focuses on incidents and risk factors for accurate delirium in older patients with a hip fracture. His PhD extends this further to examine and evaluate screening tools for delirium in the PACU. Rami is engaged in research around cognitive care in older people and the nursing responsibility of caring for patients with delirium.

ramialdwikat@yahoo.com.au