World Academy of Science, Engineering and Technology
International Journal of Medical and Health Sciences
Vol:13, No:02, 2019

Antiplatelets and Anticoagulants in Rural Emergency General Surgery

Authors : Jeong-Moh John Yahng, Angelika Na

Abstract : Introduction: Increasing numbers of general surgical patients are being prescribed antiplatelet and anticoagulant medications (APAC) for various cardiovascular and cerebrovascular conditions. Surgical patients who are on APAC present a management challenge as bleeding risk needs to be balanced with thromboembolic risk. Although guidelines exist in regards to APAC management in elective surgery, there is a lack of guidelines in the emergency surgery setting. In this study we aim to characterise APAC usage in emergency general surgical patients admitted to a rural hospital. We also assess the impact of APAC usage on clinical management of these patients. Methods: Prospective study of emergency general surgical admissions at Northeast Health Wangaratta (Victoria) from 2 July to 25 Oct 2014. Questionnaire collected demographics data, admission diagnosis, APAC usage, anaesthesia techniques, operation types, transfusion requirement and morbidity / mortality data. Results: During the 4 month study, 118 patients were classified into two groups: non-APAC (n=96, 81%) and APAC (n=22, 19%). Patients in the APAC group were older compared to the non-APAC patients (mean age 72 vs 42 years old). Amongst patients younger than 60 years old, only 1% of them were on APAC. In contrast, 49% of patients older than 60 years old were on APAC ($p<0.001$). Patients who were admitted with a bleeding problem were more likely to be on APAC ($p<0.05$). 19% of emergency general surgery patients were on APAC. The majority (91%) of them were on antiplatelet medication, with two patients being on dual antiplatelet agents (aspirin + clopidogrel or ticagrelor). 15% of emergency general surgical patients requiring operations were on APAC. 11% of all laparotomies and 33% of gastroscopy for haematemesis/melaena patients were on APAC. Both of the patients operated for bleeding following surgery at another hospital were in the APAC group. In regards to impact on clinical management, 59% of APAC patients had their medications interrupted or ceased, on average by 3.5 days (range 1-13 days). 2 out of 75 operations were delayed due to APAC usage. There was no difference in the use of central venous or arterial line for increased monitoring ($p=0.14$) or in the use of warming blanket (Bair Hugger™) ($p=0.94$). Overall, transfusion rate was higher amongst APAC patients (14% vs 3%) (p 0.04). The recorded morbidity (n=2) and mortality (n=1) in this study were all in the APAC group. Discussion: Nineteen percent of emergency general surgical admissions and fifteen percent of operated patients were on APAC. The prevalence of APAC usage was higher in those aged sixty and above. General surgical patients who were admitted with a bleeding problem were more likely to be on APAC. Two patients who were operated for bleeding following surgery at another hospital were in the APAC group. Note that there was no patient in the non-APAC group who was admitted for post-operative bleeding. We observed two cases in which operation was delayed due to APAC usage. Transfusion, morbidity and mortality rate were higher in the APAC group. Conclusion: In this study, nineteen percent of emergency general surgical admissions were on APAC. The use of APAC is more prevalent in the older age group, particularly those aged sixty and above. Higher proportion of APAC compared to non-APAC patients were admitted and operated for bleeding problems. There is an urgent need for clinical guidelines regarding APAC management in emergency general surgical patients.

Keywords : antiplatelet, anticoagulants, emergency general surgery, rural general surgery, morbidity, mortality
Conference Title : ICAGSO 2019 : International Conference on Advancements in General Surgery and Oncology
Conference Location : Melbourne, Australia
Conference Dates : February 01-02, 2019