

POSSUM scale in emergency surgery

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INTRODUCTION

Technology and improved healthcare in developed countries have extended lifespan to previously unattainable ages. At present emergency guidelines do not differentiate between younger adults and older persons, what may have serious consequences. Physiologic and Operative Severity Score for the enUmeration of Mortality and Morbidity (POSSUM) is used to predict the risk-adjusted mortality and morbidity rates of the patients undergoing surgery. The scale consists of 12 criteria describing the physical state of the patient and 6 criteria concerning the surgery. The aim of the research was to evaluate whether POSSUM is useful to predict the risk of complications.

CASE STUDY

We performed a retrospective study of 161 patients who were admitted from emergency to the Department of General, Minimally Invasive and Elderly Surgery in Olsztyn between May and October 2017. Patients were divided into three groups: 18-60 years, 61-80 years and older than 80 years. Emergency surgery outcomes in patients older than 80 years were compared with corresponding statistical predictions of morbidity and mortality, as calculated using the POSSUM.

The mortality rate was 1.1%, 9.4% and 31% respectively in the three age groups. Taking into account patients followed up after relocation to the ICU, the overall mortality rate in the

oldest age group was 53.9 %. All of the patients older than 80 years old who died a short time after surgery had mortality rates greater than 95% and morbidity rates greater than 60% according to POSSUM.

CONCLUSIONS

This study shows that age itself results in the higher the risk of perioperative death. We recommend patient evaluation using the POSSUM scale to better predict this risk. Patients with higher mortality and morbidity scores should be very carefully selected for surgery. For cases in which the risk of postoperative complications are greater than the potential benefits of the treatment, minimally invasive or even palliative treatment should be considered instead.

Kategoria: K2. Wyzwania chirurgii XXI wieku – możliwości i ograniczenia / Operacje z wykorzystaniem technik minimalnie inwazyjnych / Twenty-first century surgery challenges – possibilities and limitations / Operations using minimally invasive techniques