

No difference in 30-days all-cause mortality between patients having had intravenous or inhaled anaesthesia for maintenance, during abdominal cancer surgery.

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Introduction: In abdominal cancer a majority is colorectal cancer, in Sweden representing the third most common cancer diagnosis per year. Main curative treatment for primary abdominal cancer is surgery and a majority of cancer patients will during diagnosis or treatment receive anaesthesia. There are no firm recommendations on which anaesthesia is preferable due to patient demographics or type of surgery. However, recent data has suggested that anaesthesia could have an impact on post-operative complications and post-operative mortality.

Aim: The aim was to assess difference in 30-days all-cause mortality between patients having had intravenous or inhaled anaesthesia for maintenance during abdominal cancer surgery.

Methods: This was an observational register-based study, using Swedish Perioperative Register (**SPOR**) for identification of patients that underwent surgery due to primary abdominal cancer during 2010-2018. Codes from Swedish Association of Anaesthesiology and Intensive care (SFAI) were used for identification of anaesthetic technique used, total intravenous anaesthesia (TIVA) or inhaled anaesthesia. Groups were compared regarding 30-days all-cause mortality, patient demographics and perioperative course.

Result: The study cohort consisted of 10.926 patients, 8.750 had received inhalational anaesthesia and 2.176 had received TIVA. The overall 30-days mortality was 1.6% (n=176), no difference between the techniques was found; 1.7% (n=128) in inhalational-group and 1.3% (n=28) in TIVA-group (p=0.181). However, acute surgery, male gender, high age and high ASA-classification had significant impact on 30-days mortality.

Conclusion: This study showed no influence of anaesthetic technique on 30-days all-cause mortality between patients having had inhalational or intravenous anaesthesia for maintenance during abdominal cancer surgery.

Keywords: Abdominal cancer, Anaesthetic technique, Mortality, Outcome, SPOR.