A COMPARISON OF OUTCOMES OF TRAUMATIC LEFT AND RIGHT SIDED COLONIC INJURIES

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Introduction: Traumatic colorectal injuries are common in penetrating abdominal trauma. We aimed to study differences in outcomes based on relation of the injury to the splenic flexure.

Methodology: Using ICD-9 codes penetrating colorectal injuries in the National Trauma Databank were identified for years 2011-2015. Subjects with missing data or cardiac arrest at time of arrival were excluded. Patients were divided into two groups based on injury distal or proximal to splenic flexure.

We studied age, gender, injury severity score (ISS), pulse rate and systolic blood pressure (SBP). We analyzed acute kidney injury (AKI), acute respiratory distress syndrome (ARDS), deep vein thrombosis (DVT), pulmonary embolism (PE), pneumonia, deep surgical site infection (SSI), severe sepsis, unplanned intubation and unplanned return to OR.

Statistical analysis was conducted using SPSS for windows. $P<0.05$ was considered statistically significant.

Results: Of 4,212,717 patients, 12,372 (0.29%) sustained a colonic or rectal injury. Of these 5085 (41.1%) sustained injury distal to splenic flexure (Group 1) while 7287 did not (Group 2).

Groups 1 and 2 were noted to be similar in terms of age (mean of 31.1 vs 32.4 years), percentage of male patients (89.3% vs 87.8%), ISS (13 and 14), mean SBP (122 vs 123 mmHg) and pulse rate (97 vs 98 bpm) respectively.

Statistically significant differences were found in the incidence of pneumonia (4.7 vs 5.6%; p=0.029), organ SSI (4.2 vs 5.7%; p=0.0008), deep SSI (2.6 vs 3.7%; p=0.0009), severe sepsis (2.4 vs 3.3%; p=0.005) and unplanned intubation (1.4 vs 1.9%; p=0.03) between groups 1 and 2 respectively.

Conclusion: There appears to be a slightly higher morbidity rate in patients sustaining injury proximal to splenic flexure. This may be due to concomitant injuries associated with proximal colorectal penetrating injuries.