

Abstracts

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Introduction: To define the impact of pre-hospital hypotension on the dynamic, systemic acute inflammatory response to blunt trauma.

Materials and methods: From a cohort of 472 blunt trauma survivors studied following IRB approval, two stringently matched sub-cohorts were derived. 22 patients who sustained pre-hospital hypotension following blunt trauma (15 males and 7 females; age: 45 ± 3.8 ; Injury Severity Score [ISS]: 20.7 ± 1.8) were matched with 28 normotensive trauma patients (20 males and 8 females; age: 46.1 ± 2.5 ; ISS: 20.8 ± 1.3). Serial blood samples (3 samples within the first 24 h and then from days 1 to 7 post-injury) were assessed for 24 mediators using LuminexTM, and NO₂–/NO₃– was measured using the nitrate reductase/Griess assay. Two-Way ANOVA was used to compare groups. Dynamic Bayesian Network (DyBN) inference was utilized to infer causal relationships based on probabilistic measures.

Results: Statistically significant differences were observed in ICU LOS, total LOS, days on mechanical ventilator, and Marshall MODScore between hypotensive and normotensive patients. Shock markers (shock Index, pH, lactate, and base deficit) were significantly altered in hypotensive patients. Plasma levels of chemokines (MCP-1/CCL2, IP-10/CXCL10, MIP-1 α /CCL3, IL-8/CCL8) and cytokines (IL-6, IL-10, IL-17, GM-CSF, IL-1 β , IL-7), as well as sIL-2R α were significantly elevated over the first 7 days post-injury in the hypotensive vs. normotensive patients. DyBN suggested that the chemokines MCP-1/CCL2 and MIG/CXCL9 in the hypotensive and normotensive patients, respectively, affect plasma IL-6 levels differentially in the initial 24 h post-injury.

Conclusion: Studies in stringently-matched cohorts suggest that an episode of pre-hospital hypotension post-trauma leads to early, dynamic reprogramming of systemic inflammation, and worse outcomes.

Disclosure: No significant relationships.

THE ACUTE CARE SURGEON

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COMPARISON OF LAPAROSCOPIC AND OPEN APPENDECTOMY: 5-YEAR SINGLE CENTER EXPERIENCE

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Introduction: Acute appendicitis is the most common cause of acute abdomen and a major part of the emergency surgical interventions. The aim of our study is to examine to laparoscopic or open appendectomy cases demographic data, length of stay and morbidity.

Materials and methods: Between January 2008 June 2013 with the diagnosis of acute appendicitis in 1490 patients who underwent surgery were analyzed retrospectively. The data were analyzed with SPSS 16.0 software package.

Results: 546 laparoscopic cases (37 %), 944 cases open surgery (63 %) underwent appendectomy procedure. Mean age was 31.4 years of laparoscopic surgery group, open surgery group was 33.7 years. 296 patients in the laparoscopic group (54 %) were male and 621 patients in open group (65 %) were male. the average length of hospital stay was 1.5 days at laparoscopy group, 2.1 days at open surgery group. At laparoscopy group, the mean length of hospital stay were significantly shorter than the open surgery group (p:0,003). 25 patients (4 %) at Laparoscopy group, 43 patients (4 %) at the open surgery group that extends the length of stay or requiring re-hospitalization morbidity (superficial surgical site infection and/or deep surgical site infection) were observed. There was no statistically significant difference between the two groups

Conclusion: Laparoscopic surgery is preferred in terms of patient comfort and earlier return to work. Between the open surgery, and laparoscopic surgery, in terms of length of stay and wound infection, was shown to be statistically significant difference in favor of laparoscopic surgery. With increased experience in laparoscopic surgery will increase for treatment of acute appendicitis.

Disclosure: No significant relationships.

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IMPLEMENTATION OF A NOVEL SURGICAL ADMISSION PROFORMA IN A SUB-SPECIALISED EMERGENCY GENERAL SURGICAL UNIT TO IMPROVE PROVISION OF CARE

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Introduction: The Emergency General Surgery Unit (EGSU) at Aintree University Hospital, Liverpool, is a busy subspecialised unit. The high volume of patients admitted to the unit is reflected in recent evidence showing significant increases of emergency surgery nationwide [1]. The NHS commissioning board produced 'Commissioning for Quality and Innovation (CQUIN): guidance', to improve quality, safety and outcomes [2]. These include; dementia assessments and venous-thromboembolism (VTE) assessment. This project audits the completion of CQUIN targets, and implementation of a novel surgical admission proforma.

Materials and methods: Patients admitted to the ESGU were audited over two 3-week periods pre and post-introduction of the proforma. Items audited included: VTE assessment and prescription, regular medication prescribed and dementia assessment. Qualitative feedback was obtained from online surveys in order to further develop and improve the proforma.

Results: A total of 232 consecutive patients were included in this study, 102 pre-introduction of the surgical admission proforma, 130 post-introduction of which 88 (68 %) the surgical admission proforma was used. VTE assessment completion significantly increased post-introduction of the proforma (pre 62.1 % vs post 81.8 %, ***p > 0.001). This was reflected in VTE prescription (pre 64.1 % vs 81.8 %, ***p > 0.001). Where the proforma was used, 98 % of VTE assessments were completed. Dementia assessment significantly increased post-introduction (9.1 % vs 56 % respectively,