Aim: The need to perform elective and emergency cholecystectomy in an ever ageing population increases yet these risks are poorly quantified. The study aims to review the current evidence to quantify further the post-operative risk of cholecystectomy in the elderly population.
Method: A systematic literature search of PubMed, EMBASE and the Cochrane Library databases were conducted and a meta-analysis was performed in accordance with the recommendations of the Cochrane Library and PRISMA guidelines.
Result: This review identified 99 studies incorporating 333,041 patients. Increasing age was significantly associated with increased rates of overall complications (OR 2.33, CI95%: 2.00-2.71, $p < 0.001$), major complication (OR 2.32, CI95%: 1.52-3.54, $p < 0.001$), risk of conversion to open cholecystectomy (OR 2.32, CI95%: 1.95-2.76, $p < 0.001$), risk of bile leaks (OR 2.05, CI95%: 1.18-3.55, $p < 0.001$), risk of postoperative mortality (OR 5.99, CI95%: 3.77-9.52, $p < 0.001$) and was significantly associated with increased length of stay (MD 2.12 days, CI95%: 1.01-3.24, $p < 0.001$).
Conclusion: Post-operative outcomes such as overall and major complications are significantly higher in all age cut-offs. There is six-fold increase in perioperative mortality which increases by nine-fold in patients >80 years old. This study confirms preconceived suspicions of risk in elderly patients undergoing cholecystectomy and will aid treatment planning and informed consent.

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Prophylactic Topical Tranexamic Acid versus Placebo in Surgical Patients: A Systematic Review and Meta-Analysis

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Introduction: Tranexamic acid (TxA) is used in surgery to reduce blood loss. However, its safety profile is unclear. This review examined the efficacy and safety profile of topical TxA.
Method: Electronic databases including Medline and EMBASE were searched from inception to May 2019. Randomised controlled trials (RCTs) published in English comparing topical TxA with placebo were included. Primary outcomes were mortality and blood transfusion incidence. Secondary outcomes included venous thromboembolism.
Result: 7,539 patients from 71 RCTs were analysed. Compared to placebo, topical TxA reduced blood transfusion incidence (OR 0.30, 95%CI [0.26 - 0.34], $p < 0.001$). Topical TxA use had no impact on mortality (OR 0.78, 95%CI [0.45 - 1.36], $p = 0.39$). Pulmonary embolism (OR 0.73, 95%CI 0.27 to 1.93, $p = 0.52$) and deep vein thrombosis (OR 0.79, 95%CI [0.65 to 1.77], $p = 0.79$) were not associated with topical TxA use.
Conclusion: Topical TxA is effective in reducing transfusion need in surgery without association to major adverse events. However, its optimal dosing regime remain to be determined.

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Alpha Blockers for Medical Expulsive Therapy: A Meta-Analysis of High-Quality Trials

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Aim: To investigate the effectiveness of alpha blockers for medical expulsive therapy (MET) based on high-quality studies only.
Method: A systematic review was conducted searching for prospective randomised trials comparing stone expulsion rate using alpha blocker monotherapy compared to placebo or supportive treatment. Embase, Pubmed and Google Scholar were searched in June 2018. Only studies with a CONSORT score of at least 90% and low risk of bias using Cochrane risk-of-bias v.2 tool were included.
Result: 6 randomised, double-blind, placebo-controlled trials were included comprising 2,036 participants. The pooled risk ratio (RR) for ureteric stone expulsion using alpha blocker monotherapy compared to placebo was 1.04 (95% CI 0.99 to 1.10) indicating no significant effect of alpha blocker treatment on stone expulsion. None of the included studies individually showed a significant effect of alpha blockers. No difference in stone expulsion time was seen between alpha blockers and placebo (-0.20 days, 95% CI -2.66 to 2.26). There was also no significant difference in the number of adverse events (RR of 1.15, 95% CI 0.92 to 1.45).
Conclusion: This systematic review of high-quality trials shows no effect of alpha blockers on ureteric stone expulsion. There is therefore a need to reconsider current practice and guidelines.

STARSurg Medical Student Oral Prize

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Pelvic Exenteration: A Comparison of Long Term Outcomes between Locally Advanced Primary and Recurrent Rectal Cancers

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Introduction: Pelvic exenteration is performed for locally advanced primary (LAP) and increasingly recurrent (RC) colorectal cancers. We evaluated our pelvic exenteration programme at Queen Elizabeth Hospital Birmingham and determined survival between LAP and RC colorectal cancers.
Method: Patients were identified between September 2010 and December 2018. Collated parameters included: demographics, diagnosis, resection rate, histological R-status, length of stay (LOS), comprehensive complication index (CCI) and survival. Analysis was performed using the R programming language.
Result: A total of 34 LAP and 39 RC patients were identified. Demographics were similar between groups (Mean age LAP 55 years, RC 60 years; Male LAP 22/34, RC 29/39). The majority were rectal cancers (LAP 26/34, RC 28/39). There was no difference in either resection rates, (LAP 23/34, RC 21/39; X2 (1, N = 73) = 0.926, $p > .05$) or R0 status (LAP 13/23, RC 10/20; X2 (1, N = 43) = 0.015, $p > .05$). There was no difference in either LOS (LAP Mdn = 21; RC Mdn = 18, $U = 176$, $p > .05$) or CCI (LAPMdn = 20.9; RC Mdn = 12.2, $U = 227.5$, $p > .05$). Median survival using Kaplan–Meier analysis was similar (LAP Mdn = 1297 days, RC Mdn = 1388 days, $p = 0.45$).
Conclusion: Survival and R0 status for pelvic exenteration in patients with recurrent colorectal cancer is similar to locally advanced primary cases within our regional specialist centre.

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Impact of Serum Albumin Concentration and Neutrophil-Lymphocyte Ratio Score on Gastric Cancer Prognosis

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Aim: Serum albumin concentration (COA) and neutrophil-lymphocyte ratio (NLR) could reflect immunological and nutritional status. We aim to evaluate the impact of COA-NLR score on the prognosis of gastric cancer (GC).
Method: We perform a retrospective analysis on a database of 637 GC cases, between January 2010 and December 2017. 396 patients met the inclusion criteria for this study (non-resectional or palliative surgery were excluded). COA-NLR score was defined as: COA under 35 g/L and NLR value of 2.585 or higher – score 2; one of these conditions – score 1; and neither – score 0.