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Abstract

Utility of Neutrophil-to-Lymphocyte Ratio and Platelet-to-Lymphocyte Ratio in Predicting Conservative Treatment Failure of Acute Cholecystitis

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Background: Acute cholecystitis is a common surgical emergency. Early laparoscopic cholecystectomy (LC) is the standard treatment, but conservative management is possible when necessary. The neutrophil-to-lymphocyte ratio (NLR) and platelet-to-lymphocyte ratio (PLR) are inflammatory markers that can predict the prognosis of various diseases. However, no study has reported an association between these inflammation-based prognostic markers and conservative treatment failure of acute cholecystitis.
Objectives: The present study aimed to evaluate NLR and PLR in predicting conservative treatment failure of acute cholecystitis.
Materials & Methods: This retrospective study analyzed 508 patients admitted for acute cholecystitis and treated conservatively between 2018 and 2022. The patients were divided into two groups of failed and successful conservative treatment. The NLR and PLR were calculated on the first day of admission. The differences in clinical manifestations according to treatment outcome were investigated. The optimal values for the NLR and PLR were identified through the receiver operating characteristic curve analysis.
Results: Our study population comprised 107(21.1%) patients with conservative treatment failure and 401(78.9%) patients with successful conservative treatment. The NLR and PLR levels were found to be significantly higher in the failed conservative treatment group (14.09 ± 7.73 vs 7.80 ± 5.46 and 239.16 ± 145.26 vs 157.26 ± 107.7, respectively, $p < 0.001$). The best cut-off values for NLR and PLR were 7.31 and 148.56, respectively. Sensitivity for NLR and PLR were 82.2% and 76.6%, respectively. The specificity for NLR and PLR were 63.6% and 61.6%, respectively. Specific factors that showed an association with the failure of conservative treatment were fever (BT > 37.8 °C) ($p < 0.001$), leukocytosis at admission (WBC ≥ 15000) ($p < 0.001$), albumin level (3.69 ± 0.27, $p = 0.016$)
Conclusions: The inflammatory markers of NLR and PLR can be used as the indicator for predicting conservative treatment failure of acute cholecystitis, leading to timely surgical intervention and reducing complications.

Keywords: Acute cholecystitis, NLR, PLR, conservative treatment failure

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Abstract

Navigating the Boundaries: Exploring the Impact of Instructions for Use Guidelines on EVAR Outcomes

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Background: Endovascular aortic aneurysm repair (EVAR) is popular alternative to open repair for abdominal aortic aneurysms (AAA), with lower early postoperative mortality rate. However, the success of EVAR is influenced by anatomical characteristics, particularly at the proximal aortic neck, as outlined in the instructions for use (IFU) guidelines.

Objectives: This study aims to analyzes outcomes of EVAR using the Endurant stent graft in IFU and non-IFU groups, focusing on early and late complications.

Materials & Methods: A total of 477 asymptomatic AAA cases underwent EVAR from January 2010 to September 2021, with 195 cases utilizing the Endurant stent graft. Baseline AAA measurements were compared to Endurant-specific IFU and non-IFU guidelines using the OSIRIX Inc imaging database. Patients were divided into IFU and non-IFU groups. Primary endpoints included perioperative mortality, intraoperative complications, and immediate adjunct procedures. Secondary endpoints included early and late complications, overall survival, and reintervention-free survival at a 5-year follow-up.

Results: One patient was excluded due to non-IFU compliance of the distal landing zone, leaving 194 AAA patients with a proximal landing zone to analyze. Of these, 98 underwent EVAR within IFU guidelines, while 96 were treated outside of IFU. No significant differences in 30-day mortality were observed between the groups (1% vs. 2%, $p = 0.619$). Non-IFU cases had higher rate of endoleak type IA during intraoperative period (10.3% vs. 1%; $p = 0.012$) and required more Palmaz stent placements (12.4% vs. 1%; $p = 0.001$) compared to IFU cases. At the 5-year follow-up, there were no significant differences in overall survival (61.2% vs. 52.1%, $p = 0.178$) or reintervention-free survival (88.5% vs. 82.8%, $P = 0.254$) between the groups. Factors such as age (70 years), chronic kidney disease, and conical neck influenced overall survival, while chronic kidney disease and neck angle affected reintervention-free survival.

Conclusions: The use of the Endurant stent grafts outside of IFU guidelines may yield acceptable early and late outcomes after EVAR. However, non-IFU cases had higher rates of intraoperative neck complications, requiring adjunct neck procedures. EVAR performed outside of IFU guidelines should be done cautiously by experienced surgeons who can promptly address any issues that may arise.

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Abstract

Correlation Study Between Psoas Muscle Mass and Mortality in Peripheral Arterial Disease Patients Who Underwent Revascularization

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Background: Peripheral artery disease (PAD) as we know is a progressive disorder characterized by stenosis and occlusion of large and medium sized arteries with majority of the case requiring high risk endovascular intervention. Our study aims to optimize preoperative evaluation of patients requiring intervention with the goal to reduce postoperative morbidity and mortality rates. Current reviews note that sarcopenia is related to increase in postoperative complications.

Objective: Based on that, our study objective is to establish a relationship between psoas muscle area and the rates of postoperative mortality and complications.

Method and Material: In this retrospective, single centered study we collected data of PAD patient who underwent endovascular procedure at Thammasat University during 2019-2021. We evaluated the degree of sarcopenia measuring the cross-sectional areas of skeletal muscle seen on an axial CT image at the caudal end of the third lumbar vertebra. The association with all-cause mortality was analyzed by Kaplan-Meier curves and Cox regression model.

Result: We divided patients into two group, a low psoas muscle group (psoas muscle area below 680.38 mm^2) and normal to high psoas muscle group. Low psoas muscle group revealed mortality rates of 37.5% in 30 days and up to 60% in 1 year with $P < 0.001$ (log rank test) as compared to normal to high psoas muscle group (Psoas muscle above 809.16 mm^2) where survival is 100% in both 30 days and 1 year. We also found that normal to high psoas muscle groups have lower post op complication such as less ICU stay and lesser need of hemodialysis post operatively.

Conclusion: From this study it can be concluded that low core muscle mass is likely associated with increased mortality rate. Therefore, this could be a useful tool in risk stratification and decision making for elective endovascular procedures.

Keywords: sarcopenia, psoas muscle area, mortality

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Abstract

Comparison of Diagnostic Performance of Four Risk Stratification Systems of Thyroid Nodules: American Thyroid Association (ATA) Classification, the Thyroid Imaging, Reporting, and Data System (TIRADS) of the American College of Radiology (ACR-TIRADS), the European Thyroid Association TIRADS (EU-TIRADS), and the TIRADS developed by Kwak et al. (Kwak-TIRADS)

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Background: Ultrasonography is the primary modality used for imaging thyroid nodules. There are multiple ultrasonographic based risk stratification systems used to evaluate thyroid nodule.

Objectives: To evaluate the accuracy of these systems.

Materials and Methods: 100 thyroids nodules which are 1 cm or larger and available pathological finding in Rajavithi hospital are retrospectively reviewed by radiologist to assess composition, echogenic, shape, margin, calcification and lymph nodes enlargement. Each nodule was categorized using four risk stratification systems: the American Thyroid Association (ATA) classification, the Thyroid Imaging, Reporting, and Data System (TIRADS) of the American College of Radiology (ACR-TIRADS), the European Thyroid Association TIRADS (EU-TIRADS), and the TIRADS developed by Kwak et al. (Kwak-TIRADS). The diagnostic performance of each system was compared We used Receiver operating characteristic curve to identified cut off values that yielded optimal sensitivity (SEN), specificity (SPEC), positive predictive value (PPV), negative predictive value (NPV), and accuracy (ACC)

Results: There are benign 69% and malignant 31% of our populations. The AUCs of the ACR-TIRADS, EU-TIRADS, Kwak-TIRADS, and ATA classification were 0.803, 0.779, 0.799, and 0.782, respectively. ACR has best SEN, NPV and AUC while ATA has best SPEC and PPV.

Conclusions: All risk stratifications have comparable diagnostic performance while ACR-TIRADS has best accuracy in our population.

Keyword: Thyroid nodule, ATA, ACR-TIRADS, EU-TIRADS, Kwak-TIRADS

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Abstract

Natural History and Outcomes in Managing Acute Mesenteric Ischemia, 10 Years Experience in Tertiary Center

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Background: Acute mesenteric ischemia (AMI) is a rare clinical entity and high mortality. The goals of surgery are rapid confirmed diagnosis, resuscitation, and revascularization. Aim of this study is to define risk factors that predict the adverse outcomes and mortality of AMI

Objective: To estimate the incidence of AMI, proportions of its different forms , risk factors that predict the adverse outcomes, and early and late outcomes in AMI.

Material and Method: Over 10-year period between 2010-2020, 88 patients of AMI were included. Primary end point was to define risk factors that predict the adverse outcomes . Secondary end point was 30-day, 1-year and 5-year mortality.

Result: Overall, 577 cases of AMI were identified (27 embolism , 17 thrombosis, 24 MVT, 14 NOMI,) The median age was 68 (range 27–97) and 69.4% were male. Predominating comorbidities included hypertensive disease (68%), atherosclerosis (48%), and atrial fibrillation (34%). The majority of cases (54%) were caused by superior mesenteric artery occlusion (thrombosis 17%, embolism 37)., non-occlusive mesenteric ischemia in 19%, venous thrombosis in 26%. 32% of patients received revascularization. In 16% an exploratory laparotomy or laparoscopy revealed unsalvageable bowel prompting end- of-life care

Conclusion: The overall hospital mortality and 3 year mortality were 43% and 73%, respectively. The overall revascularization was 32% (25% open embolectomy, 5% endovascular, and 2% hybrid procedure)

Keywords: Acute mesenteric ischemia , prognostic factor , outcome

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Abstract

Validation Of Prognosis Score For Predict Risk Of Abdominal Wound Dehiscence In Open Midline Laparotomy

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Background: Abdominal wound dehiscence is an undesirable postoperative complication associated with high morbidity and mortality rate. Previous literature identified independent risk factors and developed a Rotterdam risk score to predict the probability of developing abdominal wound dehiscence. Identification of high-risk patients offers an opportunity for prevention strategies.
Objectives: This study aims to validate a risk score whether the score can accurately predict fascial dehiscence in our institution.
Materials & Methods: A retrospective analysis was performed by searching medical registry from July 2019 to August 2023. Patients who underwent midline laparotomy and developed abdominal wound dehiscence were included in this research. Meanwhile, patients who had undergone open appendectomy, open abdomen procedure, urological or gynecological operations and umbilical hernia surgery were excluded. Patients were recruited in 1:1 ratio of event to non-event.
Results: Among the 1,408 patients undergoing midline laparotomy, 138 patients developed abdominal wound dehiscence. One-hundred patients from dehiscence group and one-hundred patients of control group were included for validation. Calculation of the risk score resulted in significant higher in abdominal wound dehiscence group. Median score was 4.55 (range:2-9.3) vs. 3.50 (range:0.9-6.7) in the dehiscence and control group respectively. Area under the receiver operating characteristics curve was 0.71 indicated good diagnostic performance. The fit of the model was good as shown by p-value goodness of fit of 0.32. Patients were categorized into low and high probability of developing abdominal wound dehiscence at score point of 3.6 with sensitivity 61.6% and specificity 70.4%.
Conclusions: Rotterdam risk score can be to predict the occurrence of abdominal wound dehiscence and might take into consideration for our institution.

Keywords: surgical wound dehiscence, risk score, mortality rate, length of stay, complications

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Abstract

Factors Affecting Late Presentation of Locally Advanced Breast Cancer Patients in Surin Hospital

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Background: Locally advanced breast cancer (LABC) has high incidence in developing countries, especially in Thailand. In Surin hospital, most of patients with locally advanced breast cancer have been delayed coming to the hospital. Late presentation is an important factor that affect to advanced staging of the breast cancer.
Objective: The goals of this study are finding the factors that affect late presentation of LABC patients and planning for a proper strategy to reduce the rate of late presentation, especially in LABC patients.
Materials & Methods: A study design was a prospective cohort observational study conducted at Surin hospital from January 2020 to December 2021. New cases of breast cancer patients were approached for staging before treatment, observed during treatment and followed up for 1 year after diagnosis.
Results: 141 patients were diagnosed with breast cancer in 2020, 20 patients were excluded. A total of 121 patients were approached, the mean age at diagnosed was 52.92 ± 12.06 years. 56 patients (46.3 %) were locally advanced stage (Stage III,IV), all patients presented with breast mass. Fear of treatment is factor relating to late presentation of breast cancer patients ($P = 0.040$). Late presentation patient was associated to LABC ($P = 0.001$). Factor relating to late presentation of locally advanced breast cancer patients were Khmer ethnicity ($P = 0.002$), history of breast cancer screening ($P = 0.033$), and presence of angiolymphatic invasion ($P = 0.032$). Multivariate analysis shown Khmer ethnicity ($P = 0.043$), Menarche ($P = 0.045$) and history of breast cancer screening were factors relating to late presentation of locally advanced breast cancer patients ($P = 0.042$).
Conclusions: Late presentation of breast cancer patient was associated with locally advanced stage. Fear of treatment is factor relating to late presentation of breast cancer patients. Ethnicity, menarche and history of breast cancer screening were factors relating to late presentation of locally advanced breast cancer patients. Appropriate breast cancer screening protocol may reduce late presentation of locally advanced breast cancer patients.

Keywords: Locally advanced breast cancer, late presentation, factors

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Abstract

Prognosis Factors of Post-Operative Chyle Leakage after Pancreatic Surgery

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Background: Chyle leakage is a complication that can occur after pancreatic surgery, related to available data on prevalence, risk factors, and the clinical significance of chyle leakage is very different from one to another
Objective: To investigate the factors associated with chyle leakage after pancreatic surgery at Rajavithi Hospital.
Materials and Methods: This study was a retrospective analysis of patients who underwent pancreatic surgery at Rajavithi Hospital from January 2015 to June 2022. The presence of chyle leakage was determined using diagnostic criteria based on triglyceride levels in peritoneal fluid, with levels exceeding 110 mg/dl. The data were analyzed using descriptive and inferential statistics, including the chi-square test, T-test, simple logistic regression, and multiple logistic regression.
Results: Among the patients who underwent pancreatic surgery at Rajavithi Hospital, 416 patients were examined, revealing a prevalence of chyle leakage in 100 cases (24.04%; 95% CI = 20.0%–28.44%). Upon employing univariate logistic regression, several factors associated with chyle leakage were identified. The approach used for pancreatic surgery, when compared to open factor, robotic surgery was identified as a risk factor (OR = 4.06; 95% CI = 2.0-8.25; *p*-value < 0.01). Additionally, for every 1-minute increase in operation time (OR = 1.01; 95% CI = 1.00-1.02; *p*-value = 0.03). Multivariate logistic regression analysis was used to identify the independent risk factors with Chyle leakage after pancreatic surgery is the approach factor compared to open factor, robotic surgery was identified as a risk factor (Adj. OR = 3.92; 95% CI = 1.62-9.48; *p*-value = 0.02). Furthermore, for every 1-centimeter increase in size (Adj. OR = 1.10; 95% CI = 1.00-1.20; *p*-value = 0.036).
Conclusion: Chyle leakage is a postoperative complication following pancreatic surgery, with a prevalence of 24.04%. Additionally, it was discovered that robotic surgery, increased operation time, and sizes are significant risk factors for Chyle leakage.

Keywords: Chyle leakage, pancreatic surgery

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Abstract

Efficiency of White Blood Cell and Neutrophil Count to Diagnosis of Acute Appendicitis

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Background: Acute appendicitis is the most common disease in surgical emergencies. It presents typical symptoms, but atypical presentations usually occur. Missed or delayed diagnosis can result in increased morbidity and mortality. There are many various scores for diagnosis, but it depends on individual evaluation based on doctors' experience and patient perception. The aim of this retrospective study is to evaluate diagnostic value of preoperative white blood cell (WBC) and neutrophil in diagnosis acute appendicitis.
Objectives: To evaluate sensitivity and specificity of white blood cell and neutrophil count to diagnose acute appendicitis in appendectomy patients in Somdech Phra Pinklao hospital.
Materials & Methods: Between 2019 and 2020, there were 363 appendectomies in Somdech Phra Pinklao hospital. Out of total cases, 5 were excluded due to data loss. The present study therefore analyzed total 358 cases through a retrospective study using existing data that have been recorded (e.g. Age, Sex, Date of surgery, White blood cell count, Neutrophil, Pathologic results). The analysis results include: sensitivity, specificity, NPV and PPV.
Results: Of the 358 cases studied, 314 were confirmed to be appendicitis via pathology, and 44 cases were not appendicitis. The mean age of all patients was 39.3 (15-91), Gender: 203 (56.7 %) were male and 155 (43.3%) were female. In an appendicitis group, 288 were discovered to have leukocytosis, PMN predominate in 262, and both leukocytosis and PMN predominate in 248. According to the findings, sensitivity and specificity of leukocytosis were 91.7% and 9.1%, respectively, while the sensitivity and specificity of PMN predominate was 83.4% and 36.4%, respectively, and the sensitivity and specificity both leukocytosis and PMN predominate were 79% and 40.9%, respectively.
Conclusions: Leukocytosis and PMN count showed high sensitivity and high positive predictive value for diagnosing acute appendicitis, but low specificity and low negative predictive value. Although using both leukocytosis and PMN count could increase the specificity and negative predictive value, the values were still not high enough to be used for diagnosing acute appendicitis, clinical investigation was necessary.

Keywords: acute appendicitis, appendectomy, leukocytosis, PMN predominate

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Abstract

Outcomes of Endovascular Aneurysm Repair (Evar) Compared with Open Repair for Infected Abdominal Aortic Aneurysms (Mycotic Aneurysms) in King Chulalongkorn Memorial Hospital

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Background: Infected abdominal aortic aneurysms (iAAA) carry high mortality and morbidity. The mainstay of treatment for iAAA are antibiotics and surgical intervention consisting of aggressive excision, extensive debridement and in-situ or extra-anatomical reconstruction. Endovascular repair (EVAR) has been increasingly used to treat mycotic aneurysms, but the outcomes and potential benefits are poorly understood. In Thailand, the comparative data between open repair and endovascular repair for iAAA rarely exist.

Objectives: To compare outcomes of EVAR vs open repair for iAAA. The primary outcome is 1-year survival rate. The secondary outcome is the identification of risk factors that affect mortality rate.

Materials & Methods: A retrospective cohort review of all iAAA patients from January 2011 to June 2022 at King Chulalongkorn Memorial Hospital was conducted. Patients who did not undergo either EVAR or open repair were excluded. Demographics and clinical data were reviewed. Kaplan-Meier curves, Fisher's exact, Man-Whitney U tests and Pearson Chi-square were used with statistical significance defined as $P < 0.05$.

Results: Between January 2011 and June 2022, 64 patients diagnosed with iAAA were identified. One patient was excluded due to no treatment received, leaving 63 patients. Thirty-six patients underwent open repair (57%) vs 27 patients (43%) who underwent EVAR. The mean age was 66.9 ± 11.5 (SD) years, with a median of 70 years old. The demographic data between open repair and EVAR groups showed no statistical differences except that the CRP level was significantly higher in open repair group compared to the EVAR group (124 vs 39.8, respectively; $P = 0.04$). The 1-year survival rate was 85% and 90.1% in open repair vs EVAR group respectively, but there was no statistical significance ($P = 0.431$). The overall 1-year survival rate was 86.1%. The 30-day mortality rate was 13.9% and 14.8% in open repair vs EVAR group respectively without statistical significance ($P = 0.533$). Patients who had fever at presentation had a statistically significant ($P = 0.009$) increased mortality rate. Presentation with ruptured aneurysm and psoas abscess increased mortality rate without statistical significance ($P = 0.293$; $P = 0.429$ respectively). The other factors including sex, age, presentation with abdominal pain, GI bleeding, shock, comorbidities, pathogens and aorto-enteric/colonic fistula did not increase mortality rate.

Conclusions: Our data suggest that EVAR may be a safe alternative or used for bridging to definitive open repair in iAAA neither decrease in survival rate nor increase in mortality rate. This study is limited by small sample size at a single institution. Further studies with larger sample sizes are needed. Until then, the mainstay treatment of iAAA is still open repair.

Keywords: Infected abdominal aortic aneurysm, mycotic aneurysm, endovascular aneurysm repair, open aneurysm repair

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Abstract

Endovascular and Open Aneurysm Repair in Asymptomatic AAA: The Influence of Unfit and Elderly Patients on Mortality and Reintervention Rates

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Background: Over the several decades, endovascular aneurysm repair (EVAR) has become the preferred method for treating asymptomatic abdominal aortic aneurysm (AAA), accounting for about 80% of cases. For fit patients, EVAR offers the advantages of lower perioperative mortality and faster postoperative recovery compared to open aneurysm repair (OAR). However, long-term follow-up is required for EVAR patients due to potential graft-related complications and reintervention.

Objective: This study aims to compare the early and late outcomes of EVAR and OAR in asymptomatic AAA patients who require surgical intervention.

Methods: A retrospective cohort study was conducted from January 2010 to June 2022, including asymptomatic AAA patients who underwent either EVAR or OAR. The primary outcome was 30-day mortality, while secondary outcomes included early post-operative complications, overall survival rate, and reintervention-free rate at 5-year follow-up.

Results: Out of 564 asymptomatic AAA patients, 445 (78.9%) underwent EVAR and 119 (21.1%) underwent OAR. The mean age of the EVAR group (75.56 ± 7.7 years) was significantly higher than the OAR group (68.74 ± 9.5 years, $p < 0.001$), and the EVAR group had a significantly higher percentage of unfit patients (53% vs. 10.1% in OAR group, $p < 0.001$). The perioperative mortality rate was 0.89% in the EVAR group, lower than the 3.36% in the OAR group, $p = 0.066$. The median follow-up time was 43.6 months (IQR: 19.2-77.15 months). In the early postoperative period, OAR had a higher rate of complications requiring reintervention (8.4% vs. 1.3% in EVAR group, $p = 0.002$). At the 5-year follow-up, OAR showed a significantly higher overall survival rate compared to EVAR (83.4% vs. 55.1%, $p < 0.001$). However, there was no statistically significant difference in the reintervention rate between the two groups at the 5-year period (79.0% in OAR vs. 77.9% in EVAR, $p = 0.55$).

Conclusion: EVAR demonstrates a trend towards lower perioperative mortality, even in elderly and unfit patients, compared to OAR. However, EVAR is associated with a significantly lower survival rate at the 5-year follow-up compared to OAR. Importantly, there is no significant difference in the reintervention rate between EVAR and OAR at the 5-year follow-up.

Keywords: asymptomatic abdominal aortic aneurysm, endovascular aneurysm repair, open aortic repair surgery

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Abstract

Appropriate Formula for Predictive Energy Expenditure in Severe Burn Compare with Indirect Calorimetry

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Background: Severe burn injuries result in abnormal metabolism. The hypermetabolic status leads to loss of lean body mass, and depletion of energy and protein reserves. Appropriate nutrition management is essential.
Objectives: Objective of this study is to find appropriate and practical formula for predict energy expenditure in severe burn patients.
Materials & Methods: A prospective cohort study 8 weeks follow up of 10 patients admit in burn unit within 192 hours after injury (male/female ratio 8/2, age 19-59 years, second to third degree burn, mean %TBSA: 39.1 ± 20.2%) who were prescribed enteral/parenteral feeding according to indirect calorimetry (IC). The measured energy expenditure (MEE) was estimated by IC at day 1,4,7 after admit then weekly until 8 weeks or discharge. MEE was compared with energy expenditure calculated by Toronto, Curreri, 2xEBEE, Simple weight-based equation (30 kcal/kg BW and 40 kcal/kg BW).
Results: MEE at day 1 to peak at first week after admit: 31.8-34 kcal/kg BW. No significant difference was found between energy expenditure calculated by the 30 kcal/kg BW and the MEE values by IC. Curreri, 2xEBEE, 40 kcal/kg BW were overestimated energy expenditure in severe burn patients. Moreover, Severe burn patients body weight will return to baseline at 2nd week after injury.
Conclusions: The 30-35 kcal/kg BW in first week follows by 30 kcal/kg BW are appropriate and practical formula in severe burn patients if indirect calorimetry is not available

Keywords: burns, energy expenditure, indirect calorimetry, formula

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Abstract

Surgical Outcomes of Implementation of Eras Protocol vs Conventional Protocol in Colorectal Cancer Surgery : A Propensity Score Matched Analysis

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Background: In recent years , Enhanced Recovery After Surgery (ERAS) protocol was utilized for minimizing stress from surgery and facilitate a quicker recovery to normal physiology. The objective of this study is determine surgical outcomes between implement ERAS protocol and conventional protocol in colorectal cancer surgery .

Methods: This retrospective study included 144 patients with stage 1-3 colorectal cancer who underwent elective surgery with curative intent compared between ERAS protocol (n = 28) and conventional protocol (n = 116) at a single tertiary center between January 2018 and December 2020 . After propensity score matching 28 patients in the ERAS protocol group and 28 patients in the conventional protocol group were included in analysis. This primary endpoint were 3-year overall survival rate and 3-year disease free survival rate while secondary endpoint was length of hospital stay.

Results: In the matched cohort the preoperative length of stay (median 1 day VS 3 days $P < 0.001$) and postoperative length of stay (median 5 days VS 8 days, $P < 0.001$) were significantly lower in ERAS group. The 3-year overall survival rate was not significant different between ERAS group and conventional group (ERAS 85.7% VS conventional 78.4%, $P = 0.549$). The 3-year disease free survival rate was not significant different between ERAS group and conventional group (ERAS 88.3% VS conventional 78.6%, $P = 0.23$). Mean implement of ERAS is 85.28%. The result in matched cohort were similar to unmatched cohort.

Conclusion: The implementation of the ERAS protocol in colorectal cancer surgery shows a better 3-year overall survival and 3-year disease-free survival outcome, although it is not significant when compared with the conventional protocol. Moreover, the implementation of ERAS protocol was associated with a decrease in the length of stay.

Keywords: Colorectal cancer, Surgery, ERAS, Surgical outcomes

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Abstract

Outcome of Open Abdomen with Planned Ventral Hernia in King Chulalongkorn Memorial Hospital

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Background: Open abdomen (OA) is a condition resulted from an inability to close an abdomen by a conventional fascia to fascia method. OA may lead to several complications, the most formidable one is enteroatmospheric fistula (EAF). Planned ventral hernia (PVH), a method of abdominal closure using an absorbable mesh to bridge abdominal fascia, is a simple way to close an OA that has failed delayed primary fascial closure (DPFC). However, PVH carries the risk of EAF and all patients who survive the OA will develop ventral hernia.
Objectives: The aim of the present study is to evaluate the outcomes of OA patients in King Chulalongkorn Memorial Hospital, where the PVH was most commonly used to close the OA, in terms of mortality and EAF rate.
Materials & Methods: A retrospective study was performed on OA patients admitted to in King Chulalongkorn Memorial Hospital from January 2011 to January 2022. After a period of temporary abdominal closure (TAC) with a vacuum pack technique, the patients would be evaluated for DPFC and PVH would be used when DPFC could not be done safely. The primary outcomes were mortality rate and EAF rate. The secondary outcomes were amount of blood transfusion, intensive care unit length of stay, ventilator day, and other complications.
Results: There were 280 OA patient included, 125 trauma (44.6%) and 155 non-trauma (55.4%). Excluding 52 patients (18.6%) who underwent TAC only and died, 228 underwent a definitive abdominal closure. Of these 228 patients, DPFC was successfully performed in 86 patients (37.7%), while 142 underwent PVH (62.3%). EAF developed in 8 patients (4.7%). Excluding 52 early deaths, mortality rate was 25%.
Conclusion: PVH is a simple method of definitive abdominal closure that can be considered in OA patients who fails DPFC. However, PVH carries a risk of EAF and a subsequent ventral hernia repair is required.

Keywords: Open abdomen , planned ventral hernia , enteroatmospheric fistula.

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Abstract

Effectiveness of Ultrasonography as an Adjunct to Mammography for Screening and Diagnosis of Multifocal and Multicentric Breast Cancer

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Background: Although multifocal-multicentric breast cancer has worse prognosis and associated with ipsilateral axillary lymph node metastasis but recent guideline only suggest using MRI in patient who suspicious of multifocal-multicentric breast cancer. Despite of higher specificity, MRI is associated with higher cost and higher false-positive rate, especially in dense breast tissue. Previous studies have shown that mammography alone has low sensitivity in additional tumor foci detection while using ultrasonography as an adjunct to mammography has shown to improve sensitivity.

Objectives: The primary outcome were sensitivity of ultrasound in detecting multifocal and multicentric breast cancer. The secondary outcome were factors affecting detection rate of additional foci such as age, breast density and size of index tumor.

Materials & Methods: A single center retrospective analytic study include 1294 female patients who diagnosed as ipsilateral multifocal and multicentric breast cancer and underwent surgery. The preoperative mammography and ultrasonography were reviewed and compared with pathological report, as gold standard, to analyze sensitivity for detecting additional foci. Data was recorded between January 2016 and April 2021 in department of general surgery, King Chulalongkorn Memorial Hospital.

Results: As a result, 1294 patients with mean age of 56.9 years old and 87.9% of patients with dense breast tissue. The data include 12.9% of multifocal breast cancer, 8.2% of multicentric breast cancer and 78.8% of unifocal breast cancer. Sensitivity of additional foci detection when using mammography alone is 4.5% and increase to 35.3% when combine with ultrasonography. However, there are 21 false positive foci from ultrasonography.

Conclusions: The additional of ultrasonography to mammography increase detection rate of additional foci in multifocal-multicentric breast cancer. However, using ultrasonography as single modality still have high false positive rate.

Keywords: Multifocal breast cancer, Multicentric breast cancer, Multiple ipsilateral breast cancer, Ultrasound, Sensitivity

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Abstract

Prospective Trial of Esophagogastroscopy Versus Thoracic Computed Tomography in Prediction of Upper Gastrointestinal Tract Stricture After Caustic Ingestion

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Background: Stricture, the most frequent complication of consuming caustic substances, always results in gastrointestinal obstruction and swallowing difficulties. However, the ability to predict stricture of CT and EGD remains unclear.

Objective: This prospective study investigates the ability of CT and EGD to predict upper gastrointestinal tract stricture in patients with caustic ingestion.

Materials and Methods: Patients over the age of 18 who visited Thammasat Hospital within 24 hours of taking caustic chemicals, were enrolled. All patients underwent CT and EGD within 48 hours, followed by barium study of the upper gastrointestinal tracts at three weeks. Data included demographic characteristics; timing of exposure, type of substances; and clinical course and management while hospitalized and for 6 months post consumption were collected. Receiver-operating characteristics values were constructed for evaluating the predictability of CT and EGD on upper gastrointestinal tract strictures.

Results: 23 patients were enrolled between September 2022 till the present. Upper gastrointestinal stricture was detected in 5 (41%) of 12 patients who completed the follow-up period. Grading based on CT findings has a similar accuracy for predicting strictures as grading based on endoscopic findings (AUC of 0.80 vs 0.84). CT grading cut-off ≥ 2b resulted in a sensitivity of 80% and a specificity of 86%. Meanwhile, EGD cut-off ≥ 2b resulted in a sensitivity of 80% and a specificity of 71%.

Conclusion: Despite the AUCs and sensitivity of CT and EGD were comparable, the specificity of EGD was poorer, suggesting that CT may be a more appropriate method for screening patient at risk for subsequent strictures.

Keywords: Caustic ingestion, Computed Tomography, Esophageal stricture, Esophagogastroscopy, Gastric outlet obstruction

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Abstract

A comparison of Complication of Acute Appendicitis Before and During Covid -19 Era

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Background: Appendicitis is a common surgical condition that can occur both in adult and children. During the COVID-19 pandemic, access to medical services and surgical procedures has been delayed due to the need to await confirmation of COVID-19 test results. This delay can lead to an increased risk of complications, such as appendiceal rupture, appendiceal abscess formation, surgical site infections, and longer hospital stays. In patients infected with COVID-19, there may also be complications in the lungs, leading to an increased mortality rate.
Objectives: To compare the complication of patients with appendicitis before the COVID-19 pandemic and during the COVID-19 pandemic.
Materials & Methods: Single-center retrospective study from medical record of appendicitis
patient who admission due to diagnosis of appendicitis. To compare patients who received treatment between April 1, 2019, and March 31, 2021, with those who received treatment between April 1, 2021, and December 12, 2021
Results: A total population of 1,728 patients, divided into two groups: 1,350 individuals before the outbreak of COVID-19 and 378 individuals after the outbreak of COVID-19. There were 4 cases (0.23%) of COVID-19. There was no significant difference in the occurrence of appendix rupture between the two groups 422 (31.26%), 108 (28.57%), $p = 0.317$). There was no significant difference in onset of symptom, length of stay in hospital, time to antibiotic, time to operation, surgical site infection (SSI), and mortality between the two groups, except for COVID-19 cases, where hospitalization was extended to 14 days.
Conclusions: There was no significant on incidence of rupture, length of stay, mortality, SSI, time to antibiotic, time to operation, and onset of symptoms.

Keywords: appendicitis, appendiceal abscess, appendiceal rupture, COVID-19 with appendicitis, postoperative morbidity

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Abstract

Occurrence of Central Vein Stenosis Among AV Access Patient Rajavithi Hospital

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Background: The number of patients with chronic kidney disease in Thailand is increasing and receiving replacement dialysis treatment. The preparation and long-term planning for dialysis lines will reduce complications from emergency dialysis line insertion in patients.

Objective: This study aims to investigate the occurrence and factors associated with central vein stenosis in patients with kidney disease who have a permanent hemodialysis line in their arms at Rajavithi Hospital.

Material and Methods: It is an analytical study conducted as a retro-prospective cohort study, gathering data on patients who underwent permanent hemodialysis surgery in the arm at Rajavithi Hospital between January 1, 2019, and December 31, 2021. The sample size was 120 cases. General data were analyzed using descriptive statistics, and factors with relationships were identified using inferential statistics, specifically Logistic regression.

Result: The results of the univariate analysis revealed that age (OR = 1.10, 95% CI = 1.02-1.19), diabetes (OR = 17.86, 95% CI = 2.23-142.43), high blood pressure (OR = 29.62, 95% CI = 1.71-51.09), hyperlipidemia (OR = 20.10, 95% CI = 2.51-160.44), Times of Rt CVC (OR = 4.57, 95% CI = 2.01-10.36), and Times of Lt CVC (OR = 3.80, 95% CI = 1.95-7.40) were significant factors. The multivariate analysis identified Times of Rt CVC (Adj. OR = 8.78, 95% CI = 1.53-50.46) as a risk factor for central vein stenosis, statistically significant at the 0.05 level.

Conclusion: Age, Diabetes, High blood pressure, Hypercholesterolemia, Times of Rt CVC and Times of Lt CVC are all risk factors for central vein stenosis.

Keywords: Chronic kidney disease, Permanent hemodialysis surgery, Risk factors.

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Abstract

Factors Associated with Perioperative Blood Transfusion in Elective Colorectal Cancer Surgery at Maharat Nakhon Ratchasima Hospital

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Background: Perioperative blood transfusion rates in colorectal cancer were reported to range from 16.0-33.8%. The Annual report of the Thai Red Cross Society 2018 showed that only 54.6% of red blood cell units were supplied for all diseases. This means that we are experiencing a red blood cell shortage.

Objectives: To study the factors associated with perioperative blood transfusion in non-metastatic patients who underwent elective colorectal resection.

Materials & Methods: A retrospective cohort study in patients who underwent elective colorectal resection at Maharat Nakhon Ratchasima Hospital. The data were reviewed between the years 2016 and 2020. The patients were divided into transfused and non-transfused patients. The associated variables were assessed by univariate and multivariate analyses. In univariate analysis, the continuous data were analysed through independent t-test and categorical data were analysed by Fisher's exact test, associated factors with P-values less than 0.20 were selected for multivariate analysis. The logistic regression model was used for multivariate analysis, the factors with P-values less than 0.05 were considered statistically significant.

Results: Among 434 patients who underwent colorectal resection, 33.8% received blood transfusion perioperatively. Multivariate analysis showed four variables as significant associated factors for perioperative blood transfusion, including preoperative hemoglobin that more than or equal to 10 g/L [OR 0.02; 95%CI (0.01-0.05), $p < 0.001$], prolonged operative time more than 150 minutes [OR 1.99; 95%CI (1.04-3.82), $p = 0.037$], intraoperative estimated blood loss 201-400 ml [OR 3.94; 95%CI (1.72-9.04), $p = 0.001$] and more than 400 ml [OR 24.37; 95%CI (9.79-60.67), $p < 0.001$], and postoperative infection [OR 4.33; 95%CI (1.22-15.35), $p = 0.037$].

Conclusions: Low preoperative hemoglobin, Prolonged operative time, high intraoperative blood loss, and postoperative infection were associated with perioperative blood transfusion.

Keywords: Perioperative blood transfusions, Colorectal cancer

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Abstract

Cold Pack Reduced Postoperative Pain in Intra-Abdominal Surgery: A Randomized Controlled Trial

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Background: Open abdominal surgery has the unavoidable side effect of postoperative discomfort. Surgery causes tissue trauma that activates and sensitises nociceptor receptors. The activation threshold of tissue nociceptors and the conduction velocity of pain nerve signals are both lowered by topical cold. Cryotherapy shown to be effective in reducing postoperative pain.

Objectives: To examine the effectiveness of cold pack for reducing postoperative pain in patients who undergoes intra-abdominal operation.

Materials & Methods: Computer-generated randomization was used to divide the sixty patients who received general anesthesia for intra-abdominal surgery at Nakhonpathom hospital into the cold pack group (n = 30) and the control group (n = 30). Pain levels were assessed using the Visual Analog Scale (VAS) at 2, 6, and 24 hours following surgery, respectively. Cold packs were given at 2 hours following surgery for 30 minutes every 4 hours until 24 hours had passed. Chi-square was used to compare the intensity of the pain (p 0.05).

Results: Mean postoperative pain scores (VAS) were significantly lower in the cold pack group versus the control group (2.97 ± 1.61 vs 3.90 ± 1.32; $p = 0.017$) at 24 hours. There was no statistically significant difference in postoperative pain scores at 6 hours, Morphine accumulated dose, length of stay, wound complication and respiratory complication between two groups.

Conclusions: Cold pack can reduce postoperative pain at 24 hours in intra-abdominal operation without complication.

Keywords: Cold pack, Cold gel pack, Postoperative pain, Intra-abdominal surgery

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Abstract

Risk Factors for Rebleeding Esophageal Varice in Cirrhotic Patients in Chiangrai Prachanukroh Hospital

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Background: Esophageal variceal bleeding is a severe and vital complication in cirrhotic patients. Each episode of rebleeding can increase morbidity and mortality rate include cost in hospitalization.

Objectives: To analyze the clinical risk factor for rebleeding esophageal varice in cirrhotic patients

Materials & Methods: 185 cirrhotic patients with esophageal varices who received emergency esophago-gastroduodenoscopy at Chiangrai Prachanukroh Hospital between January 2012 and September 2023 were included in this study. A case-control study was performed comparing the patients who rebleed in 30 days with those without rebleed in 30 days

Results: From univariate analysis, age > 50 years, Viral-associated cirrhosis, Presence of comorbid, Presence of encephalopathy, Albumin level < 2.3 g/L, PT > 18 sec and CTP score > 8 was significant factor associated with rebleeding in 30 days, Multivariate analysis show that three variables were independent risk factors for rebleeding include Presence of comorbid (OR 3.68, 95% CI 1.39-9.76, $P = 0.009$), Presence of encephalopathy (OR 13.3, 95% CI 2.26-78.94, $P = 0.004$) and CTP score > 8 (OR 2.33, 95% CI 1.07-5.07, $P = 0.03$)

Conclusions: Rebleeding esophageal varice in 30 days was mainly affected by presence of comorbid, presence of encephalopathy and CTP score > 8. Cirrhotic patient who admitted with esophageal varice with these factor should be surveillance EVL within 30 days to prevent rebleeding.

Keywords: Esophageal varices, Cirrhosis, Rebleeding, Risk factor, Predictors

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Abstract

Effectiveness of Bridging Percutaneous Transhepatic Cholecystostomy to Laparoscopic Cholecystectomy in Moderated Cholecystitis in Phrapokklao Hospital

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Introduction: Cholecystectomy is a gold standard for treatment of moderately acute cholecystitis. In Phrapokklao Hospital, Emergency Laparoscopic cholecystectomy is available only on Tuesday and Fineday, 8.30A.M. - 4.30P.M. Because of limited condition, opened cholecystectomy will be performed in moderate cholecystitis. Or just only gallbladder drainage and delay LC.
Objective: The aim of this study was presented effectiveness of bridging percutaneous transhepatic cholecystostomy (PTGBD) to laparoscopic cholecystectomy (LC) in moderated cholecystitis in PPK.
Materials & Methods: Descriptives study of 55 patients with PTGBD in acute care unit of Surgery Phrapokklao Hospital from 1 January 2022 to 31 August 2023. Data collection included ages, sex, BMI, comorbidity, severity of acute cholecystitis, date of admission, date of PTGBD, date of cholecystectomy, discharge date, and pathologic of gallbladder. The analysis was performed using descriptive statistics.
Results: 55 patients with PTGBD, 39 patients were early cholecystectomy, 11 patients were delaying cholecystectomy, 5 patients lifelong PTGBD. 32 patients, PTGBD were done in 1st day of admission (82%), 6 patients were done in 2nd day of admission (15%), and 1 patient were done in 3rd Day of admission (2.6%). Before LC, all of patient clinical SIRS was release, and No conversion to OC. After LC, 19 Patients (48%) were discharge in next day, 7 patients (17.9%) were discharge in 2 days, 10 patients were discharge in 3 days (25.6%), and 1 patient was discharge in 4th day, 5th day, and 6th day (2.6%). Mean of length of hospital stay is 4 days after admission. Pathological of gall bladder were acute cholecystitis 25 patient (64.1%), gangrenous cholecystitis patient (10.3%), suppurative cholecystitis and acute onto chronic cholecystitis 3 patients (7.7%), and acute on top chronic cholecystitis and subacute cholecystitis 2 (5.1%)
Conclusion: PTGBD bridging to LC is a choice of procedure in moderately severe cholecystitis, that release SIRS, painful and decrease conversion rate of LC

Keywords: acute cholecystitis, PTGBD, cholecystostomy

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Abstract

The Prevalence of Hematotoxin Snake-Bitten Patients Who Had Normal Baseline 20-Minute Whole Blood Clotting Time but Prolonged 20-Minute Whole Blood Clotting Time During Following-up at Siriraj Hospital

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Background: Hematotoxin snake bites are a major public health problem in Thailand. Early diagnosis combined with appropriate treatment can reduce complications and death rates.

Objectives: The aim of study was to examine the prevalence, characteristic, and outcomes of patients bitten by hematotoxin snakes and the whole blood clotting time "clotted" at 20 minutes, but later became "un-clotted."

Methods: A single center retrospective review (01/01/2008- 01/01/2018). The study included patients bitten by hematotoxin snakes who were initially examined with a 20-minute whole blood clotting time (20WBCT) and followed up with at least one additional 20WBCT. Exclusion criteria were patients with underlying diseases related to abnormal blood clotting, as well as those taking anticoagulant or antiplatelet drugs.

Results: Of total 1,364 patients with snake bite, after exclusion, there were 934 patients included in the study. The prevalence of patients bitten by hemotoxic snakes and the whole blood clotting time "clotted" at 20 minutes but later became "un-clotted" was 2.5% (n = 23). The factors affecting the result between patients who became un-clotted later and those who un-clotted at the first time were statistically significant difference in bitten location finger (54.2% vs. 21.4%, $P = 0.007$) and swelling (100% vs. 82.1%, $P = 0.028$). However, there was no significant difference in age, gender, underlying disease, type of snake. There was no significant difference in patients receiving antivenom (83.3% vs. 73.2%, $P = 0.401$).

Conclusions: The prevalence of patients bitten by hemotoxic snakes and the whole blood clotting time "clotted" at 20 minutes but later became "un-clotted" was rare. However, similar to individuals who first presented with clotted 20WBCT, it can result in a considerably raised need for antivenin. Therefore, it is critical to identify this patient group, particularly if they have swelling and finger location, in order to facilitate early detection, prompt treatment, and avoid possible complications.

Keywords: hematotoxin, WBCT, snake bite, antivenom , fibrinogen(maximum 5 keywords)

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Abstract

Impending Ruptured AAA: Is EVAR the Game-Changer? A Retrospective Cohort Study on Early and Late Outcomes

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Background: Several randomized controlled trials have shown a significant early survival benefit for endovascular aneurysm repair (EVAR) of asymptomatic abdominal aortic aneurysm (AAA). However, much less is known about outcomes of EVAR and open repair surgery (ORS) in symptomatic, non-ruptured AAA, commonly referred to as impending ruptured AAA.

Objective: This study aims to investigate the early and late outcomes of EVAR and ORS among patients with impending ruptured AAA.

Materials & Methods: This retrospective cohort study included 140 patients with symptomatic, non-ruptured AAA who underwent either ORS or EVAR. Infective native AAAs were excluded. The primary endpoint was perioperative mortality, while secondary endpoints included operative details, perioperative complications, intensive care unit (ICU) stays, hospital stays, re-intervention, and survival rate during five years of follow-up.

Results: Among the 140 patients, 29 patients were treated with ORS and 111 patients were treated with EVAR. The EVAR group had a higher percentage of unfit patients (62.2%) compared to the ORS group (6.9%) ($P < 0.001$). There were no significant differences in AAA morphology between the two groups. The perioperative mortality rate for the ORS group was 3.4% compared to 1.8% in the EVAR group ($P = 0.504$). Patients in the EVAR group experienced statistical advantages in terms of reduction of operative time, blood loss, and blood replacement ($P < 0.001$). Additionally, EVAR patients had shorter ICU and hospital stays compared to ORS patients ($P < 0.001$). There were no significant differences between the groups in terms of in-hospital mortality, perioperative re-intervention, and perioperative complications, except for respiratory failure, which was significantly greater in the ORS group. At the five-year follow-up, there was no significant difference between the groups in overall survival and re-intervention-free time.

Conclusions: This study found no significant difference in perioperative mortality between EVAR and ORS in the treatment of symptomatic, non-ruptured AAA, despite the EVAR group including more unfit patients than the ORS group. EVAR demonstrated advantages in terms of operative details, respiratory failure, as well as ICU and hospital stays compared to ORS. Furthermore, there was no significant difference between the groups in terms of overall survival or re-intervention-free time at five years.

Keywords: impending ruptured abdominal aortic aneurysm, endovascular aneurysm repair, open repair surgery

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Abstract

Immediate TIVAD Usage for Chemotherapy does not Increase Catheter-Related Infection

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Background: To reduce complications, an interval between placement of the TIVAD and its first use may be advisable due to TIVAD related infection. Several studies on Immediate TIVAD usage had proven its safety to start intravenous chemotherapy. However, optimal timing to use is still unclear.

Objective: This study aims to compare the difference of TIVAD related infection and post-operative complications between immediate and delayed groups.

Materials and Methods: A total of 174 patients were enrolled in this observational analytic study from January 2018 to April 2022. After TIVAD insertion placement, patients was clarified into immediate (N = 87) and delayed group (N = 87). Time to port was within 24 hours in the immediate group and after 24 hours in the delayed group. Individual chemotherapy regimen was given in both groups. Infection checklists was recorded when the surgical site was evaluated by physicians before patients were discharged or visiting at OPD. Either Post-operative complication or clinical outcome evaluation (Device removal, Patient expired) were also evaluated.

Results: 174 TIVAD placement patients were identified (96 male,78 female). The median age was 64 years old (range34-88). Predominating diagnosis include colorectal cancer was 60.9%. The major staging were advanced disease (56.9%) and the major role of chemotherapy were palliative aim (54.6%) which FOLFOX regimen shown the most using regimen in this study(59%). Significant shorter of median operative time in delayed group (40 mins vs 45 mins, $p = 0.025$). The median time to port in delayed group was 10 days (range2-19 days). Overall complication was found in 15 patients (8.6%). There was no significant difference of TIVAD related infection between immediate and delayed group(2 vs 6, $p = 0.278$). One patient in delayed group had bleeding complications which need to re-operation. Neither immediate nor delayed group reported catheter related mortality in this study.

Conclusions: Immediate TIVAD usage does not increase TIVAD related infection or further complications. This timing is safe and considerable option.

Keywords: TIVAD related infection, Immediate TIVAD usage, Time to port

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Abstract

Dose CT Scan have Role in Rate Reduction of the Unnecessary Appendectomy for Acute Appendicitis?

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Background: Acute appendicitis is the most common cause of acute right lower quadrant abdominal pain leading patients to the Emergency department. The diagnosis of acute appendicitis comprises of history, physical examination, laboratory investigations and diagnostic imaging. The role of diagnostic imaging is another major controversy. This study aims to assess the feasibility of using CT scan and factors that related to decline in rate of unnecessary appendectomy for acute appendicitis in Phrapokklao hospital.
Objective: The aim of this study is to assess the unnecessary appendectomy rate that can be avoided after mandatory CT scan in patients with acute right lower quadrant abdominal pain in Phrapokklao hospital.
Materials & Methods: This study was descriptive retrospective study in the patients presented with right lower quadrant pain who suspected with acute appendicitis and visited at the emergency department of Phrapokklao Hospital from February 2023 to July 2023. All patients who did not have CT scan were excluded. The unnecessary appendectomy defined as other diagnosis which was not appendicitis and complicated appendicitis (appendiceal phlegmon, appendiceal abscess) which is preferable to non-operative management with intravenous antibiotics administration. The analysis was performed using Fisher's exact test for categorical data.Univariate analysis was used to evaluate the factors unnecessary appendectomy.
Results: The study population was 305 patients. The unnecessary appendectomy rate was 28.5% (n = 87). The factors associated with reducing unnecessary appendectomy rate were age 21-60 years old (OR 1.893, P = 0.048), migratory pain (OR 2.784, P = 0.005), anorexia (OR 2.784, *P* = 0.018) and neutrophil >75% (OR 2.000, *P* = 0.045). Besides, the factors which increased the unnecessary appendectomy rate were female (OR 0.512, *P* = 0.023) and urological complaint (Dysuria symptom)(OR 0.094, *P* = 0.043).
Conclusion: The unnecessary appendectomy rate was 28.5% in this study. Age 21-60 years old, migratory pain, anorexia and neutrophil >75% were associated with reduction rate of unnecessary appendectomy. The factors which related to increase the unnecessary appendectomy rate were female and dysuria symptom. Therefore, CT scan reduced unnecessary appendectomy rate dramatically. However, the risk and benefit of each patient should be discuss and consider.

Keywords: Appendicitis, CT scan, Alvarado score, Unnecessary appendectomy

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Abstract

Outcomes of Drug Eluting Stent for Long femoropopliteal Lesion : A single center experiences

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Background: Endovascular treatments, specifically drug-eluting stents, have emerged as a promising solution for patients with long femoropopliteal artery lesions.

Objectives: This research aimed to elucidate the 1-year outcomes of employing drug-eluting stents in the treatment of extensive femoropopliteal lesions.

Methods: We retrospectively analyzed data from 12 patients with femoropopliteal > 200 mm lesions, treated between January 2017 and December 2022. The primary metrics were technical success, complications, re-interventions, and 1-year patency.

Results: The cohort comprised 13 lesions: 8 isolated SFA; 1 iliac-SFA; 2 bilateral iliac-SFA; 1 iliac-femoropopliteal; and 1 SFA-anterior tibial artery. Of these, 69.2% were right-sided. The group contained 8 males, mean age 71.61 years. Hypertension 53.84%, smoking 30.7%, and diabetes 15.38% were the predominant risk factors. Presentations included major tissue loss 7.69%, minor tissue loss 38.46%, and severe claudication 53.84. Average lesion length was 28.1 cm. All patients achieved technical success. Treatment modalities were: 53.84% isolated SFA stenting, 23.07% iliac-SFA stenting, 15.38% SFA stenting with DFA angioplasty, and 7.69% iliac-SFA stenting with DFA angioplasty. In-hospital complications were absent. Over a 12-month follow-up,1 patient in-stent occlusion at 4 months,1 patient occlusion at 12 month necessitating re-operation due to symptom recurrence. The cumulative primary patency at 1-year stood at 92.30%,secondary patency is 100%

Conclusions: The use of drug-eluting stents for extensive femoropopliteal artery lesions yielded favorable outcomes at the 1-year mark, underscoring their potential in enhancing patient care for this condition.

Keywords: Claudication, Drug-eluting stent, Popliteal artery, Superficial femoral artery, Peripheral artery disease.

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Abstract

Impact of Prognostic Factors in Intermediate and High Risk Groups of Gastric Gastrointestinal Stromal Tumor Patients

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Objective: Adjuvant targeted therapy is recommended for a high risk gastric gastrointestinal stromal tumor (GIST) patients, however this strategy is not regularly applied in Thailand. This study aimed to evaluate the impact of individual risk factors on prognosis in intermediate and high risk patients.

Methods: The medical record of gastric GIST patients who underwent gastrectomy from January 2012 to December 2021 were retrospectively analyzed. Clinicopathological data was collected. Risk factors for recurrence were subsequently analyzed. Survival analysis was adopted to explore the overall survival and recurrent free survival.

Results: One hundred and sixteen gastric GIST patients who underwent surgery at Faculty of Medicine Siriraj Hospital were included. Eleven patients with synchronous liver metastasis and 12 patients who received pre and/or post-operative targeted therapy were excluded. Data of 93 gastric GIST patients were analyzed. Fifty-six patients (60.2%) were female and mean age was 63.6 years. Seventy-three patients (78.5%) were symptomatic and the most common symptom was abdominal pain or discomfort (43.8%). Fourteen patients (15.1%) had recurrent or metastasis after surgery. Liver (43%) and surgical site (21%) were the common site of recurrence. Median time to recurrence was 28.82 months. Chi-square test showed that mitotic count and risk classification were associated with recurrence ($p < 0.001$). Mean recurrent free survival time were significantly different among the mitotic count of $> 10/5$ mm^2, 6-10/5 mm^2 and $< 5/5$ mm^2 which were 59.8, 97.2 and 132.4 months ($p < 0.001$, 95%CI 35.93-83.78, 63.96-130.45 and 123.61-141.65, respectively). Multivariate Cox's proportional-hazard model revealed a higher mitotic count was an independent prognostic factor for recurrence and survival ($p < 0.001$). Median recurrence free survival time was 132 months and 5-year recurrent free survival rate was 84%. Median overall survival time was 144 months and 5-year overall survival rate was 96%.

Conclusion: A higher mitotic count was an independent risk factor for recurrence and metastasis in intermediate and high risk gastric GIST patients. Adjuvant targeted therapy should be strongly recommended for the patients with high mitotic count.

Keywords: Gastric GIST, Prognostic factors, Recurrence, Metastasis, Targeted therapy

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Abstract

Assessment of Clinical and Imaging Risk Factors in Diagnostic of Birads 4 Breast Lesions and Pathological Outcomes

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Background: The diagnostic procedure of breast cancer hinges on a triple assessment encompassing historical analysis, physical examination, and the BIRADS assessment derived from mammograms and ultrasounds, along with a subsequent pathological biopsy. Nevertheless, due to the absence of a precise characterization of the nature of breast lumps, discrepancies in the assessment of BIRADS 4A, 4B, and 4C have emerged, leading to reduced accuracy in tumor evaluation and an excessive number of biopsies are being conducted especially in BIRADS 4A groups.

Objectives: This study was undertaken to determine the likelihood of breast cancer based on the interpretation of BIRADS 4A, 4B, and 4C at Rajavithi Hospital and to investigate the distinctive features of clinical and imaging features in relation to the pathological biopsy results for cancer intended to benefit both surgeons and radiologists in their clinical practice.

Material & Methods: Retrospective data collection spanning from January 1, 2019, to December 1, 2021, information was gathered from a cohort of 330 BIRADS 4 patients. The PPV of all BIRADS and each BIRADS categories were calculated comparing to histopathological examination and independent clinical predictors of breast cancer such as age, BMI, BIRADS score and quality of breast density were analyzed

Results: The Positive Predictive Values (PPV) for BIRADS 4A, 4B, and 4C were identified as 9.76%, 25.26%, and 75.81%, respectively. It was observed that among patients diagnosed with BIRADS 4A, both the patient's increasing age and underweight significantly influenced the accuracy of BIRADS assessment.

Conclusion: While BIRADS assessment remains the strongest predictor of breast cancer, the inclusion of aging and BMI improve accuracy of diagnosis and reduce over-investigation situations in BIRADS 4A patients

Keywords: BIRADS, breast cancer, PPV, aging, BMI

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Abstract

Associated Factors for Amputation Following Open Repaired Popliteal Artery Injury in Trauma Patients

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Background: Lower extremity vascular trauma is a potentially devastating injury that can lead to fatal outcomes, profound disability, or limb loss. Traumatic popliteal arterial injury poses the highest risk of limb loss among all peripheral vascular injuries and is associated with substantial morbidity and compromised functional outcomes.
Objective: To fine the factors that associated and effected with limb amputation in popliteal artery injury and calculate the incidence of limb amputation following open repaired popliteal artery
Material & Methods: Retrospective cross-sectional analysis study was carried out on all patients who admitted with final diagnosis of traumatic popliteal artery injury and performed open repair popliteal artery at Maharat Nakhon Ratchasima Hospital from January 1st 2012 to December to 31th 2022
Result: Total of 113 patients was performed open repair popliteal artery injuries, 27 patients was limb amputated after repair. The incidence of limb amputation after open repair popliteal artery injury was 23.9%. In univariate analyses, risk factors with p-values less than 0.20 were selected for inclusion in the subsequent multivariable analysis, include present of shock, MESS score ≥ 7, distal femur fracture, ISS score. In multivariate analysis, patients with MESS score ≥ 7 were significantly related to amputation (Adjusted OR 2.92, 95% CI 1.07-8.01, *P*-value 0.037). Other factor: Presence of shock, distal femur fracture, ISS score, were not significantly difference in two group.
Conclusion: Popliteal artery injury patients with MESS score ≥ 7 have chance to limb amputation after open repair.

Keywords: Popliteal artery injury, MESS score, ISS score

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Abstract

Mastectomy Skin Flap Necrosis After Immediate Breast Reconstruction: Risk Factor and Its Effect on Oncologic Outcome

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Background: Mastectomy skin flap necrosis is a serious complication after immediate breast reconstruction which affect patient outcomes. Its risk factor remained inconclusive and its subsequent procedure may delay adjuvant treatment which affect oncologic outcome.

Objectives: This study evaluates perioperative risk factor for skin flap necrosis, analyze duration for skin flap necrosis treatment, time-to-adjuvant treatment and oncologic outcome between two groups.

Materials & Methods: Three hundred and nine medical records conducted at King Chulalongkorn Memorial Hospital from January 2010 to December 2022 retrospectively reviewed. Demographic data, previous breast intervention, disease characteristic, type of mastectomy, breast incision, breast weight and volume, Type of reconstruction and postoperative outcome were included in the statistical analysis.

Results: A total of 309 case records were included in the analysis. Skin flap necrosis was occurred in 32 cases and NAC necrosis was occurred in 25 cases. Treatments for skin flap necrosis were local wound care for 49 patients (92.45%), debridement for 4 patients (7.55%) and implant explantation for 2 patients (3.77%), which median recovery duration was 68 days. (range 16-365 days). Median time-to-adjuvant treatment were comparable in two groups (39 vs 36 days). Local recurrence was occurred in 15 patients (4.85%).

Conclusions: This study showed that incidence of mastectomy skin flap necrosis was comparable to previous retrospective study. Risk factors for skin flap necrosis were high BMI, smoking, breast weight and periareolar incision. Its treatment duration did not affect time-to-adjuvant treatment in necrosis group.

Keywords: Immediate breast reconstruction, Skin sparing mastectomy, Nipple sparing mastectomy, Mastectomy skin flap necrosis, NAC necrosis

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Abstract

Incidence of Post-operative Pancreatectomy Fistula (POPF) After Distal Pancreatectomy (DP) Comparing Suturing and Stapling in Rajavithi Hospital

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Nowadays, distal pancreatectomy is however a standard of treatment for body to tail of pancreatic lesion, post-operative pancreatic fistula or POPF is an inevitable complication of the procedure. The fistula followed by morbidities ranged from mild to serious complication and may lead to post-operative death. In the recent year, minimal invasive surgery takes more role in distal pancreatectomy which contains marked different in controlling pancreatic stump is in laparoscopic or even robotic assist surgery need stapling device which in open there may be choices between hand-sewn and stapling. This study aims' are to compare whether had-sawn or stapling device result in different incidence of POPF and to identify risk factor of POPF in Rajavithi hospital. This study is a retro-to-prospective cohort study gathering patients' data who underwent distal pancreatectomy from database in Rajavithi hospital from October 2013 to December 2021. The total number of patients included in this study were 103. The POPF diagnosis and grading is based on ISGPS 2016. This study resulted in no significant difference incidence of POPF between stump closure technique, hand-sewn and using stapling device. The incidence of POPF in hand-sewn group was 6 (35.3%), stapling was 16 (29.6%) and combine technique was 3 (75%) [P. 163]. The stump management technique between hand-sewn and stapling are not different in term of POPF rate. There are many limitation in this study such as limited number of sample and no randomization which leads selection bias.

Keywords: distal pancreatectomy, POPF (post-operative pancreatic fistula)

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Abstract

Short Term Treatment Outcome For Acute Colonic Diverticulitis

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Background: Colonic diverticulosis in an outpouching lesion of the mucosa and submucosa of herniate through colonic wall at the area of weakness. In Thailand from previous study prevalence of right-side colonic diverticulosis is 46.7%, left side 18.7% and both side 14.1% Colonic diverticulosis may not cause symptoms, it can lead to complication such as diverticulitis and diverticular bleeding. Acute colonic diverticulitis is one common complications of colonic diverticulosis and the prevalence of hospitalization has increasing in few years ago. In western country acute diverticulitis is more effect on left side. However, there are several study right-side diverticulitis has higher prevalence in Asian population, so we performed study to evaluate grading or severity, treatment and outcome of acute colonic diverticulitis.

Objectives:

Primary objective

To review treatment and short term outcome of acute colonic diverticulitis

Secondary objective

To review incidence rate of intervention (percutaneous drainage), operation rate, re-admission rate, morbidity and mortality rate in acute colonic diverticulitis

Materials & Methods: Retrospective chart review, patients who were diagnosed colonic diverticulitis and admission in Siriraj hospital from 1st January 2015 – 30th September 2021 using CT abdomen and Modified Hinchey's classification.

Results: Our study identified 153 patients who suspected or diagnosed acute colonic diverticulitis and exclude 55 patients who has outpatient treatment or refer for treatment in the other hospital. The mean age of the 98 patients was 61.8±16.8 years, 62 (63.3%) patients were female and 36 (36.7%) patients were male. The abdominal CT scan was performed in all patients, acute right side diverticulitis was diagnosed 52 (53%) patients and left side in 46 (47%) patients. The duration of abdominal pain prior to hospitalization was 57.9 hours, in acute right side diverticulitis has 44.5 ± 36.0 hours shorter than left side 73.1 ± 64.4 hours. The grading and severity were based on the abdominal CT finding, in right side diverticulitis mostly uncomplicated diverticulitis and shorter length of hospital stay than left side (4.6 ± 3.8 VS. 7.1 ± 6.4 days) after conservative treatment.

Conclusions: Conservative management is safe and effective in acute uncomplicated colonic diverticulitis. Acute right side diverticulitis mostly uncomplicated diverticulitis and short length of hospital stay. Surgical procedure or intervention management may be considered in acute left side colonic diverticulitis

Keywords: disease, surgical procedure, doctor, emergency (maximum 5 keywords)

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Abstract

Predictive Value of Serum Biomarkers and Rutherford Classification in Acute Limb Ischemia Patients Within 30 Days After Hospitalization

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Background: The management of acute limb ischemia (ALI) currently relies on subjective clinical evaluation and the Rutherford classification for severity stratification, which can lead to inappropriate treatment. Exploring the utility of biomarkers in ALI has been inconclusive.

Objectives: This study aimed to investigate the associations between specific biomarkers and treatment outcomes within the initial 30 days following hospitalization for ALI.

Materials and Methods: All patients with varying severity of ALI admitted to Siriraj Hospital between January 2022 and July 2023 were included. Biomarker assessments (NLR, CPK, CRP, Troponin-T, lactate, and LDH) were conducted pre-surgically. Treatment outcomes were prospectively collected, with a primary focus on early amputation and a secondary focus on 30-day mortality.

Results: In a cohort of 109 ALI patients, 22.9% underwent early amputation, and 11.9% experienced mortality within 30 days. Patients with higher ALI severity demonstrated elevated levels of all assessed biomarkers ($p < 0.05$). The early amputation group exhibited significantly higher biomarker levels compared to the non-amputation group. The mortality group displayed significantly higher levels of NLR, Troponin-T, and lactate compared to survivors. The Rutherford classification III effectively identified patients at risk of early amputation and death. Receiver Operating Characteristic (ROC) analysis identified specific cutoff values for each biomarker, including NLR ≥ 12, CPK ≥ 2,000, CRP ≥ 37.5, Troponin-T ≥ 110, Lactate ≥ 3.1, and LDH ≥ 450. Multivariate analysis highlighted NLR as a significant risk factor for early amputation ($p = 0.03$) and lactate for mortality ($p = 0.004$).

Conclusion: This study concludes that serum biomarkers can predict the likelihood of 30-day amputation and mortality in ALI patients. Nevertheless, the Rutherford classification, based on clinical symptom assessment, remains effective in determining treatment outcomes and remains the preferred and cost-effective diagnostic method. Further validation and clinical application of these findings are warranted

Keywords: acute limb ischemia, biomarkers, Rutherford classification, amputation, mortality

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Abstract

Impact of the COVID-19 Pandemic on Emergency Hernia Surgery: A Retrospective Study of Surgery Related Complications and Outcomes Before and After the Outbreak

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Background: Thailand healthcare has been reorganized during the COVID-19 pandemic, affecting the availability of surgery for benign conditions including in emergency surgeries. Anterior abdominal wall hernia surgery is one of the most frequently performed operations in general surgery practice. Therefore, postponing elective hernia operations may increase complications in emergency operations.

Objectives: The aim of this study was to investigate the effects of the COVID-19 pandemic on emergency anterior abdominal wall hernia surgeries which may cause bowel obstruction and strangulation by comparing complications and other factors in the pandemic period with the control period.

Material and Methods: This single-center retrospective cohort study included all patients who underwent emergency abdominal wall hernia surgeries during the pandemic (from March 2020 to February 2022) and control period (from March 2018 to February 2020). Demographic data, preoperative clinical and pathological parameters, intraoperative findings, postoperative complications secondary to operation, additional operative procedures and length of hospital stay of patients were recorded and the pandemic and control groups were compared.

Results: Of the 43 patients from both periods, 24 from pandemic time and 19 from control period, the characteristics of patients that underwent hernia repair were similar in the two groups. Also, time from onset-to-hospital, door-to-operation room time and time from onset -to-operation room were no significant different (*P* value = 0.081, 0.089 and 0.136) Furthermore, complications such as incarcerated, strangulation and additional bowel resection procedure was no significant different (*P* value = 0.342, 1.000 and 1.000). While post-operative complications during pandemic era was found higher but no statistic significant (*P* value = 1.000).

Conclusion: There was no evidence to conclude that the decrease in the number of elective abdominal wall hernia repairs and health care system limitation in Thailand during the COVID-19 period had any impact on the risk for strangulation and post-operative complications of abdominal wall hernia surgeries.

Keywords: COVID-19, Emergency, Hernia, Complications, Strangulation

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Abstract

The Accuracy of Imprint Cytology for Intraoperative Assessment of Sentinel Lymph Nodes in Early Breast Cancer Patients in Nakhonpathom Hospital

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Introduction: Although intra-operative frozen section is a recommended method to detect breast cancer metastasis to axillary sentinel lymph nodes (SLNs), it is not widely available including in Nakhonpathom hospital. According to previous studies, touch imprint cytology (TIC) is a simple and cost-effective technique to detect metastasis. Therefore, in this study, we assessed the diagnostic accuracy of TIC for detecting SLN metastasis.

Objectives: To find the optional method for intraoperative SLN assessment in Nakhonpathom hospital.

Materials & Methods: A prospective analytic study was conducted in Department of Surgery, Nakhonpathom hospital for the duration of two years. A total of 102 patients undergoing surgery for early breast cancer were included in this diagnostic test. Sentinel lymph nodes sampling was done using isosulfan blue dye and sent for intraoperative consultation. Lymph nodes were dissected then imprinted on the slides. Intraoperative results were be discussed with the surgeon then compared to the final permanent paraffin section. The overall results were analyzed to assess the accuracy of touch imprint cytology method.

Results: Sensitivity, specificity, and diagnostic accuracy of TIC was 85.1%, 98.1%, and 92.2%, respectively. The sensitivity,specificity for detecting micrometastasis was 63.6%, 95.1% with diagnostic accuracy of 92.4%. In case of macrometasis was 91.7%, 98.2% with diagnostic accuracy of 95.6%.

Conclusions: Touch imprint cytology is a quick and effective technique for detecting breast cancer metastasis in axillary SLNs. Although frozen section had an overall higher sensitivity , the sensitivity of TIC for detecting macrometastasis was comparable to the frozen section. So we conclude that TIC is a good alternative to the frozen section in facilities where the frozen section is not available.

Keywords: breast cancer, sentinel lymph nodes, touch imprint cytology

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Abstract

Outcomes of Surgical Resection of Hepatocellular Carcinoma: A Single Institute Study

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Background: The Barcelona Clinical Liver Cancer (BCLC) guideline is widely used worldwide as the standard treatment for Hepatocellular Carcinoma (HCC). However, in Thailand, there is no established standard guideline due to the distinct characteristics of the Asian population compared to Europe and the limited available resources. Therefore, surgical resection remains the primary treatment approach for resectable HCC.

Objectives: This study aims to evaluate the outcomes of surgical resection (SR) for HCC at King Chulalongkorn Memorial Hospital (KCMH). The primary endpoints were overall survival (OS) and recurrence-free survival (RFS). The secondary endpoints included factors related to OS, RFS, complication rates, and perioperative mortality.

Materials & Methods: This retrospective study, conducted at KCMH between 2007 and 2018, included 297 participants out of an initial 366 with resectable HCC. These patients were categorized by tumor size: small size (HCC 0 - 2 cm, n = 24), medium size (> 2-5 cm, n = 114), large size (> 5-10 cm, n = 96), and huge size (> 10 cm, n = 63). Surgical resection was the chosen treatment method. Kaplan-Meier analysis was employed to display their OS and RFS. Complications were presented as percentages. Factors related to recurrence and death were assessed using the independent T-test.

Results: The mean follow-up time was 69.5 months. The 1-, 3-, and 5-year overall survival rates were 85.8%, 65.6%, and 43.4% respectively, 95.8%, 70.8%, and 54.1% in the resection group with a small HCC; 91.2%, 73.7%, and 47.4% in the medium HCC ; 81.2%, 62.5%, and 42.7%, in the large HCC ; and 80.9%, 55.5%, 34.9% in the huge HCC. The 5-year RFS rates was 41.7% in the small HCC group, 32.4% in the medium, 28.4% in the large HCC group, and 19.7% in the huge HCC group. The complication rate was 39%, and 36% of complications could be corrected with medication and percutaneous drainage (PCD), with a perioperative mortality rate of 1%.

Conclusion: In the absence of established standardized guidelines for Hepatocellular Carcinoma treatment in Thailand, surgical resection remains a pivotal approach for managing resectable cases. This study's evaluation of surgical resection outcomes at KCMH

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Abstract

Incidence of Occult Malignancy in Patient with Unprovoked Deep Vein Thrombosis

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Background: There is a known association between DVT and occult malignancy. So once we found the patient with unprovoked DVT, we should consider screening for hidden cancer. The objectives of this study were to identify find the incidence of occult malignancy in patient with unprovoked DVT to give us more information about what type of cancer we should be awared in our patients

Objective: Incidence of Occult malignancy in patient with first diagnosed with unprovoked DVT

Material and methods: This study was conducted as retrospective cohort study. The inclusion criteria encompassed adult patients who has been diagnosed DVT and had their diagnosis of DVT confirm through imaging (USG doppler,CT,MRI) in Hatyai hospital from 2009 - 2019. Medical records were reviewed to assess the subsequent occurrence of occult malignancy in Patient with Provoked & unprovoked DVT.

Result: Patients diagnosed with (DVT) at Had Yai Hospital between 2009 - 2019, a total of 1,770 individuals were identified. 666 patients were diagnosed with DVT using confirmatory methods such as USG, CT, or MRI. 188 patients were unprovoked DVT, which represents 28% of the total DVT cases. From these 188 patients, occult malignancy was later detected in 28 individuals, accounting for 14.8% of the patients with unprovoked DVT. 11 were male (40%) and 17 were female (60%). Notably, the most common malignancy found in male patients was prostate cancer, accounting for 36% of the cases, while in female patients, gynecological malignancies were most prevalent, making up 41% of the cases.

Conclusion: Prostate cancer is the most common malignancy in male patients with unprovoked DVT, while gynecological malignancies are prevalent in female patients. Using this information, we screen for occult malignancies in patients with unprovoked DVT for early detection and management.

Keywords: Occult Malignancy, Unprovoked Deep vein thrombosis, Incidence

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Abstract

A Study of Chronic Groin Pain After Lichtenstein's and Desarda's Technique in Inguinal Hernia Repair Under Local Anesthesia

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Background: There are many surgical techniques for inguinal hernia repair. The main goal of hernia treatment is to reduce recurrence rates and reduce chronic groin pain which is the most common problem following hernia surgery. The Desarda technique, first introduced in 2001, is a tissue repair method that uses the external oblique aponeurosis to strengthen the inguinal floor. Many studies report that Desarda technique is not inferior to or as effective as the standard Lichtenstein technique.
Objectives: To compare the outcomes of Lichtenstein repair and Desarda repair under local anesthesia in terms of chronic pain, short-period postoperative pain, complications, operating time and quality of life after surgery
Materials & Methods: A total 64 patients were randomly allocated to undergo Lichtenstein (L) and Desarda (D) (32 in each group). Two patients in Lichtenstein group were lost to follow-up. The primary outcome was the pain score at 3 months after surgery, defined as chronic groin pain. The secondary outcomes included pain score at 0 hours, 24 hours, 72 hours, and 1 month as well as the quality of life after surgery and operating time
Results: After 3-month follow-up, no recurrence were observed in either group. The incidence of chronic pain at 3 months was 46.6% in Lichtenstein and 12.5% in Desarda group ($P = 0.003$). There was a statistically significant difference in the mean pain score at 3 months (L:0.48 ± 0.1 / D:0.12 ± 0.05, $P = 0.003$), the mean pain score at 1 month (L: 0.73 ± 0.14 / D:0.37 ± 0.19, $P = 0.04$), quality of life (L 0.93 / D 0.97, $P = 0.01$). There was no significant difference in operative time and both early and late complications
Conclusions: In this study, the Desarda technique was significantly better than the Lichtenstein technique in the terms of chronic groin pain after surgery and quality of life. Further investigation regarding recurrence rates is required

Keywords: Inguinal hernia, Lichtenstein, Desarda, Tissue repair, Mesh repair

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Abstract

Predicting Factors Associated with Colorectal Cancer in Patient with Lower Gastrointestinal Bleeding in Roi-et Hospital

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Background: Lower gastrointestinal bleeding condition can be found more than one third of patients with gastrointestinal bleeding symptom. Colorectal cancer is the most common one of causes having lower gastrointestinal bleeding. If patients get diagnosed and cured unhurriedly, it may cause patients disabled. Moreover, it can lead to death.
Objective: This study aimed to identify risk factor which correlations of patients who have got colorectal cancer with lower gastrointestinal bleeding.
Material & Methods: The 226 patients who come to Roi-Et hospital with lower gastrointestinal bleeding state were recorded by retrospective cohort study in chart review during 1st June, 2019 to 31st May, 2023. A retrospective of data describing practices and adverse events such as colonoscopy and tissue pathology were collected. univariate analysis and multivariate analysis were used to identify determinants.
Result: 226 patients were enrolled 113 were with colorectal cancer and 113 were without colorectal cancer. Data collection shows that Diverticular disease (22.1%), sigmoid colon cancer (16.4%), Colonic polyp (12.3%) were the three most common abnormalities involve in lower gastrointestinal bleeding condition. Moreover, there are other causes e.g. CA rectum, normal colonoscope, hemorrhoid, Angiodysplasia, proctitis, and Rectal polyp. Multivariate analysis indicates that factors associated with lower gastrointestinal bleeding significantly (p-value < 0.05) is patients who are over 70 years old ($p = 0.019$), smoking (Odd Ratio (OR) 2.84, 95% CI 1.58-5.09, p-value = 0.000), family history of colorectal cancer (p-value = 0.000), and history of bowel habit change (OR 4.49, 95% CI 2.32-8.68, p-value = 0.000)
Conclusion: The great factors remarkably related with lower gastrointestinal bleeding are ages (> 70 years), smoking habit, family history of colorectal cancer, and history of bowel habit change. According to the factors, they can be used with diagnosis and participation in evaluation treatment precisely. However, this study may have some specific limitations researchers could keep studying to enhance the study to get more accurate outcomes.

Keywords: lower gastrointestinal bleeding, colorectal cancer, risk factor, smoking, bowel habit change

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Abstract

Conventional Versus Restrictive Fluid Resuscitation in Mild Acute Pancreatitis

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Background: Early fluid resuscitation is recommended for acute pancreatitis, but the optimal infusion rate is inconstant especially mild form due to conflicting and limited evidence. We investigated the association between amount of fluid resuscitation and outcome of end organ failure

Objectives: The study aimed to compare between conventional to restrictive fluid resuscitation in mild form acute pancreatitis to correlate of morbidity and mortality

Materials & Methods: This study was retrospective cohort study that gathered non transfer patient with age more than 18 years old with admitted to our center from January, 2020- December, 2022, received fluid resuscitation and diagnosed mild form acute pancreatitis. Patients were stratified into 2 groups on the basis conventional (n = 142) or restrictive fluid resuscitation (n = 52). Conventional fluid defined as receiving more 2,500 ml within 24 hours of presentation, whereas Restrictive fluid was defined as receiving less or equal than 2,500 ml within 24 hours of presentation. The primary outcomes were end organ failure

Results: Conventional fluid resuscitation was associated with increased length of stay, compared with restrictive fluid resuscitation (5.54 vs 4.18 days, $P = 0.019$). However, there were no different in end organ failure, complication, ICU admission, clinical improvement and death between two groups. The median amount of fluid resuscitation in 24 hours in two group were 3961 (3861.11-4105.99) ml in conventional fluid resuscitation and 2115 (2009.05-2222.17) ml in restrictive fluid resuscitation

Conclusions: In patient mild form acute pancreatitis, Restrictive fluid resuscitation was associated less length of stay. Moreover, there are no different in organ failure and mortality

Keywords: Mild form acute pancreatitis, Restrictive fluid resuscitation, Conventional fluid resuscitation, End organ failure

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Abstract

Retrospective Study in Abdominal Wall Reconstruction After Open Abdomen Management in King Chulalongkorn Memorial Hospital

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Background: Abdominal wall reconstruction for planned ventral hernia has undergone decades of evolution, including different reconstruction techniques and mesh materials. However, due to a lack of high-level evidence, the best approach for abdominal wall reconstruction has yet to be established.

Objectives: To compare the outcomes of different reconstruction techniques in patients with planned ventral hernia conditions.

Materials & Methods: A retrospective medical chart review between January 1st, 2013, and June 30th, 2022, at King Chulalongkorn Memorial Hospital was conducted. Demographics, diagnosis at the initial surgery, operative data, and outcomes were collected. Multivariate logistic regression evaluated the associations between reconstruction techniques and outcomes.

Results: A total of 48 patients (33 males [68.8%]) with a mean age (SD) of 37.0 (16.3) years were included in this study. The primary cause for initial abdominal surgery was trauma (79.2%). The mean interval (SD) between reconstruction and index operation was 19.6 (18.8) months. We divided the participants into two groups, where 30 and 18 patients received component separation and mesh abdominoplasty, respectively. Fourteen patients from both groups had immediate complications, e.g., seroma, surgical site infection, skin necrosis, and anastomosis leakage. In contrast, only component separation group patients had ventral hernia recurrences. When controlling for defect size, immediate complications between both groups were not statistically different (OR: 0.99, $p = 0.99$).

Conclusions: This study found no evidence to support which reconstruction techniques were superior for immediate outcomes. However, mesh abdominoplasty may have had better ventral hernia recurrence outcomes.

Keywords: Abdominal wall reconstruction, Planned ventral hernia, Component separation, Mesh

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Abstract

Human Albumin in Combination With High-Volume Lactated Ringer Solution Compared with Standard Volume Infusion for Post-Endoscopic Retrograde Cholangiopancreatography Pancreatitis Prophylaxis: A Randomized Controlled Trial

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Background: adverse event after endoscopic retrograde cholangiopancreatography(ERCP) are not common and post-ERCP pancreatitis(PEP) is the serious one. LRS has became most investigated intravenous fluid for PEP prophylaxis. Therefore, previous RCTs have show the efficacy of aggressive LRS administration in PEP prophylaxis. Aggressive volume can result in fluid overload, especially pulmonary congestion.

Objectives: The present study aimed to determine whether replacing some amount of aggressive ringer lactate hydration with 20% human albumin before performing endoscopic retrograde cholangiopancreatography(ERCP) is still reducing the incidence of post ERCP pancreatitis.

Methods: In a parallel-arm randomized single center trial, patients who underwent ERCP were randomly assigned to two groups (1:1) who received: aggressive intravenous hydration of lactated ginger's solution(LRS) (15 ml/kg of LRS bolus, 3 mL/kg/hr for 8 hours after ERCP), and the other group received standard intravenous hydration with LRS (1.5 mL/kg/h during and for 8 hours after ERCP). The primary end point was post-ERCP pancreatitis (PEP).

Results: A total of 300 participants were enrolled, and 293 participants remained for modified intention-to-treat(ITT) analysis. The two groups showed no significant differences in demographic characteristics. There was no significant difference in the intention-to-treat(ITT) PEP rate between the intervention and control group (6.7% vs 6.5%, p value = 0.873). Two case develop pulmonary congestion in each groups with no mortality found.
High risk procedure was significantly associated with PEP (15% vs 2.1%, $p < 0.001$).
Also in subgroup analysis in 100 participants who experienced high risk procedure indicates increase rates of PEP; 13.7% vs 16.3% in intervention and control group respectively. But the difference did not reach statistical significance ($p = 0.716$).

Conclusion: Aggressive peri-ERCP fluid administration using LRS combine with 50 ml of 20% human albumin did not prevent patients from PEP. In addition, no prophylactic effect was demonstrated in any subgroup. Further studies are required to examine the effect of various colloid solutions and regimens.

Keywords: pancreatitis, ERCP, lactated ringer solution, albumin solution

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Abstract

A Preliminary Randomized Controlled Trial of Intravenous Parecoxib for Prevention of Post-ERCP Pancreatitis (PEP)

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Background: Rectal NSAIDs have proven to be quite beneficial in prevention of PEP. However, it was undesirable to both health care provider, patients and unavailable in many hospitals. COX-2 inhibitor had evidence in reduced inflammation and had less side effect than non-selective COX inhibitor. We aim to used alternative NSAIDs of choice to replace rectal NSAIDs
Objective: Primary outcome is to determine effect of intravenous Parecoxib before procedure to reduce post-ERCP pancreatitis.
Material & Methods: This prospective, single center, double blind study audit of all patients undergoing ERCP between October 2022 and March 2023. All patient were randomized into two group; Parecoxib group (40 mg of Parecoxib intravenous before procedure) and Placebo group (Normal saline before procedure). This study was registered in Clinical trials registry TCTR20221020002
Result: Total of 100 patients (50 in parecoxib group, 50 in placebo group), 9 were exclude after randomization. Overall incidence of PEP was 11.7%. Intravenous Parecoxib administration was not significantly related to PEP (Adjusted OR 1.13, 95% CI 0.13-10.13, *p* value = 0.915). Our study showed controlled radial expansion (Adjusted OR 18.39, 95% CI 1.72-197.07, *p* value = 0.016) as risk factor for PEP and history of ERCP with sphincterotomy (Adjusted OR 0.02, 95% CI 0.00-0.75, *p* value = 0.035) as protective factor for PEP. No significant difference in abdominal pain score, duration of pain, length of hospital stays, and post-ERCP laboratory test between two group.
Conclusion: Intravenous administration of Parecoxib had no beneficial preventive effect on PEP

Keywords: post-ERCP pancreatitis, Parecoxib, COX-2 inhibitors, PEP