[MP-1]
The Corellation Between Pulmonary Vascular Resistance Index, Flow Ratio and Health Related Quality of Life in Adults with Uncorrected Secundum Atrial Septal Defect Related Pulmonary Arterial Hypertension

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ABSTRACT

Background: Pulmonary arterial hypertension (PAH) is a part of natural history in congenital heart disease (CHD) with shunt, including secundum atrial septal defect (ASD). This uncorrected defect affects patient's daily activities which eventually interferes their health related quality of life (HRQoL). Previous studies have shown that HRQoL impairment of PAH patients is not related with MPAP as one of the hemodynamic parameters. However, research that assess relationship between HRQoL other pulmonary hemodynamic parameters such as pulmonary vascular resistance index (PVRI) and flow ratio (FR) is rare. Therefore, this study aims to investigate the correlation between PVRI, FR, and HRQoL.

Methods: We conducted cross sectional study at Sardjito Hospital Yogyakarta since April 2016 to August 2017. Adults with uncorrected secundum ASD related PAH listed in PAH-ASD registry whose met criteria enrolled as subject. Flow ratio and PVRI was measured using right heart catheterization (RHC). Health related quality of life of subject was assessed from EQ-5D-3L questionnaire.

Results: Forty-three patients with uncorrected secundum ASD related PAH enrolled in this study. 79 % of them were female with mean age is 37.28 $\pm$ years old. This study revealed that EQ-VAS with mean value 68.37 $\pm$ 15.57 has no corellation with PVRI (r = -0,137 , p = 0.382) and flow ratio (r = 0.088 , p = 0.573) where as the utility score with mean 0.63 $\pm$ 0.14 also found no association with PVRI (r = - 0.265 , p = 0.086) and flow ratio (r = 0.119, p = 0.447).

Conclusion: The HRQoL in adult patients with PAH related to uncorrected secundum ASD showed no corellation with PVRI and FR.

Keywords: Health related quality of life; pulmonary arterial hypertension; atrial septal defect; pulmonary arterial resistance index; flow ratio.

[MP-2]
Clinical Characteristic of Acute Coronary Syndrome in Young Adults : Analysis the data from Sardjito Cardiovascular Intensive Care Registry (the SCIENCE Registry)

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ABSTRACT

Background: Ischemic heart disease is the single most common cause of death worldwide and its frequency is increasing. In the recent years, there has been increasing incidents of acute coronary syndrome (ACS) in young adults. Our objective was to assess the prevalence, demographic distribution, and risk factors and clinical characteristic of ACS in patients less than 45 years of age admitted to the Sardjito General Hospital, Yogyakarta, Indonesia.
Methods: This is a cross-sectional, retrospective, and single centre study with consecutive sampling of the patients admitted for ACS to hospital from April 2017 to Oktober 2017. Data from patients younger than 45 years of age (group I) were compared with those patients who are 45 years of age or older (group II).
Result: A total of 407 patients were included in the study with 8.6% prevalence of the young ACS and mean age of 38.86 ± 5 years. 85.7% of the young ACS patients was diagnosed with ST-elevation acute coronary syndrome (STE-ACS). Tobacco smoking was more frequent in young ACS (80% vs 67.2%, PR (prevalence ratio): 1.2, CI: 0.9-1.4, p=0.083). The prevalence of DM (11.42 % vs 30.11%, PR: 0.4, CI: 0.15-0.96 , p<0.05) and arterial hypertension (37.14 % vs 61.2%, PR: 0.6 CI:0.4 - 0.9, p<0.05) was lower in group I. Total cholesterol level in young ACS is 192.52 ± 39.69 mg/dl, with LDL 124.72 ±37.37 mg/dL, HDL 39.82 ± 13.64 mg/dL and triglyseride level is 178.28 ± 109.04 mg/dL.
Conclusion: Our study showed smoking was higher prevalence in young adult ACS. Whereas, DM and hypertension were more prevalence in adult ACS. Thus, it is important to identify the risk factors in order to prevent the development of coronary artery disease. Improving lifestyle is a goal of the first magnitude in these patient.

Keywords: Acute coronary syndrome; young adults; ischemic heart disease; risk factor.

[MP-3]
Survival after Cardiopulmonary Resuscitation in Code Blue Activation in Universitas Gadjah Mada Academic Hospital

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ABSTRACT

Background: Code blue activation is used worldwide to alert medical officers for various emergency situations in the hospital. This code is generally used to indicate a patient who needs immediate resuscitation due to some serious conditions. Most of the cases presented with respiratory and cardiac arrest. Cardiac arrest in hospital areas is common, and if the response for treatment is delayed it will produce a lower survival rate.
Objective: This report shows the analysis and effectiveness of code blue activation in UGM Academic Hospital
Design: The data of the activation code blue system is taken from January 2017 until July 2018. Retrospective information was obtained.
Results: There was a total of 140 cases for code blue activation. There was a total of 140 cases for code blue activation. The median of the patients' ages was 65 years (range, 18 - 96 years). The proportion of gender is dominated in male (85 cases;61%) than in female (55 cases;39%). The highest call for code blue activation happened in stroke disease (39 patients), then followed by sepsis (32 patients), heart disease (20 patients), chronic kidney disease (12 patients), shock (11 patients), malignancy (10 patients), other metabolic disease (4 patients), and the remaining is other diseases (12 patients). The most common places for blue code activations were in a hospital ward (98.5%, n=61). The rooms of hemodialysis (0.007%, n=1) and radiology were next (0.007%, n=1). The overall response times after the completion of the announcement were 100±10 seconds in our study. From all cardiopulmonary resuscitations that have performed by code blue team, there were 40% of patients were survived and then transferred to the intensive care unit and the remaining 60% died at the locality. We have found no significant correlation between outcome and age (p=0,552), stroke (p=0,817), sepsis (p=0,366), CKD (p=0,267) but a significant correlation between heart disease and outcome (p=0,005).
Conclusions: The findings in this study show that the response time is an important factor in the effectiveness and the optimal implementation of code blue teams in UGM Academic Hospital especially, and of course in all of the hospitals worldwide. Most cases of code blue activation in patients with heart disease are correlated with poor survival prognostic. The prevention through EWS (Early Warning Systems) monitoring, recognition the change in consciousness or vital sign of the patient are so important to be implemented.

Keywords: code blue activation; cardiac arrest; cardiopulmonary resuscitation; response time; EWS

[MP-4]
Expanding the Potential Benefits of Remote Ischemic Preconditioning Following Elective Percutaneous Coronary Intervention

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ABSTRACT

Background: Effective restoration of coronary blood flow during elective and primary percutaneous coronary intervention (PCI) may paradoxically result in further damage to myocardium, called ischemia-reperfusion injury. Remote ischemic preconditioning (RIPC) has been proposed to provide myocardial protection in the setting of primary PCI, but only few evidence had been found in the setting of elective PCI.
Objective: We conducted this meta-analysis to evaluate the available evidence in literature regarding the rationale for using RIPC in elective PCI in the setting of stable coronary artery disease.
Methods: We performed a meta-analysis according to PRISMA statement and Cochrane Handbook. Articles were systematically searched from inception to August 25, 2018 in the following databases: PubMed, EMBASE, Web of Science, and Google Scholar. Using a random-effects metaregression model, data was pooled to determine the risk ratio (RR) of major adverse cardiac, renal, and cerebrovascular events, respectively, in the treatment group compared to the control group. The meta-analysis was conducted using RevMan v.5.3 software.
Results: Total of 16 trials, comprising of 2,435 patients, met our inclusion criteria. Our pooled analysis showed that RIPC was associated with reduced myocardial infarction size (SMD = −0.23, 95% confidence interval [CI] −0.37 to −0.09; p = 0.001), increased coronary blood flow with better vascular endothelium growth factor and microvascular density (54%vs30%; RR 1.78; 95%CI: 1.35-2.34; *p*<0.001), reduced major adverse cardiac and cerebrovascular events (11%vs20%; RR 0.57; 95%CI: 0.39-0.83; *p*=0.003), and nonsignificant reduction in acute kidney injury (SMD = −0.15; 95%CI: −1.03 to −0.14; *p*=0.36). There was no difference in cardiac enzyme between RIPC and control groups (for cTnI: SMD: −0.02; 95% CI: −0.43–0.39; *p*=0.934; for CRP: SMD: −0.24; 95% CI: −0.51–0.024; *p*=0.075). No significant publication bias had been observed in the studies (Begg's test: *p*=0.139; Egger's test: *p*=0.065).
Conclusion. These findings provide vital insights into potential mechanism of RIPC for cardiac and renal protection after elective PCI by preventing procedure-related ischemia-reperfusion, improving coronary perfusion and coronary collateral blood flow. However, the evidence from our present study is needed to be interpreted cautiously due to insufficient data for long-term benefit.

Keywords: elective percutaneous coronary intervention; ischemia-reperfusion injury; remote ischemic preconditioning; stable coronary artery disease

[MP-5]
Undiagnosed and Untreated Hypertension among Indonesian Adults Aged ≥40 Years: Evidence from The Fifth Indonesia Family Life Survey (IFLS-5)

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ABSTRACT

Introduction. Hypertension is the leading contributor to the presence of cardiovascular mortality in Indonesia, with a higher risk if being uncontrolled. This study aims to know the recent prevalence of hypertension and the burden of undiagnosed and untreated hypertension in Indonesia and examine the factors associated with them.
Method. We use a cross-sectional data from The Fifth Indonesia Family Life Survey (IFLS-5), an ongoing longitudinal multi-purpose household survey that covers 83% of Indonesian population, which were collected in 2014. We included 12,992 individuals aged more than 40 years-old who have complete record on blood pressure measurement, self-reported diagnosis and treatment, and other sociodemographic factors such as age, sex, location of living, household wealth indicator, and health insurance ownership.
Results. The estimated prevalence of hypertension is 50% (95% CI: 49.2%,50.8%) with only 45% of them were diagnosed. Among the diagnosed individuals, 66% were reportedly untreated. From the multiple logistic regression analysis, we found that factors which significantly increase the likelihood of individuals to be diagnosed as hypertensive are obesity (OR 1.23, $p<0.01$), middle tertile of household wealth (OR 1.30, $p<0.01$), richest tertile of household wealth (OR 1.38, $p<0.01$), being not working (OR 1.49, $p<0.01$), woman (OR 1.73, $p<0.01$), having secondary education (OR 1.23, $p<0.01$), and having any type health insurance (OR 1.42, $p<0.01$). In case of hypertension treatment, older age (OR 1.02, $p<0.01$), obesity (OR 1.34, $p<0.05$), middle tertile of household wealth (OR 1.29, $p<0.05$), living in urban area (OR 1.20, $p<0.10$), and being not working (OR 1.26, $p<0.05$) were positively associated with whether individuals were treated or not.
Conclusion. Overall, there was still a large problem in hypertension control in Indonesia that should be addressed by both increasing public awareness about the disease improving access to sufficient health care in general.

Keywords: hypertension; cardiovascular; diagnosis; treatment

[MP-6]

The Use of Mechanical Ventilation and Sepsis are The Strongest Predictors of In-Hospital Mortality in Patient Admitted with Acute Cardiogenic Pulmonary Edema

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ABSTRACT

Background: Acute Cardiogenic Pulmonary Edema (ACPE) has a high mortality. One-year mortality rate for patients admitted to hospital with ACPE is reported up to 40%. No available data on mortality rate of ACPE in Indonesia and predictor of in-hospital mortality in ACPE.
Objectives: This study aimed to determine clinical profile, outcomes, and predictor for in-hospital mortality.
Methods: Electronic medical record data were collected retrospectively from 2014 to 2018, with 410 patients were diagnosed with ACPE on admission and 196 patients were excluded due to incomplete data.
Results: A total 214 patients were included in the study. ACPE patient are predominantly male (72.9%), mean age 61.72 ± 0.8 years, with underlying disease of ischaemic heart disease (78%) and moderate-to-severe valvular heart disease (26.8%). Co-morbidities include acute kidney injury/AKI (61.7%), history of previous stroke (14%) and atrial fibrillation (22%). During hospitalization, 28% suffered from sepsis, and another 15.4% have cardiogenic shock. Most patient with ACPE managed invasively by mechanical ventilation (50.4%). Drug of choices in acute phase were diuretic (85.5%), nitrates (80.4%), and opioid (28%); all given intravenously. Median ejection fraction on admission is 36%. During hospitalization, 81 patients (37.9%) died, with median length of stay for the survivor was 9 days. Bivariate analysis showed age, AKI, AF, sepsis, ischaemic etiology, moderate-severe valvular heart disease, type of oxygen therapy, diabetes, hypertension, cardiogenic shock, SBP, DBP, respiratory rate, ureum and TAPSE were associated with mortality (P <0.05). After adjusted, multivariate logistic regression analysis revealed that the most significant predictors of in-hospital mortality were sepsis (OR 7,813; 95% Confidence Interval [CI] 3,208 – 19,030; P < 0,001); the use of mechanical ventilation (OR 6,902; 95% CI 2,463 – 19,339; P < 0,001); SBP <90mmHg (OR 4,701; 95% CI 1,474 – 14,992; P = 0,009); AKI (OR 2,883; 95% CI 1,19 – 6,985; P = 0,019); cardiogenic shock (OR 2,833; 95% CI 1,057 – 8,398; P = 0,041) and ischaemic etiology (OR 0,300; 95% CI 0,116 – 0,774; P = 0,013).
Conclusion: We observed in-hospital mortality rate of 37.9% in patient admitted with ACPE. The use of mechanical ventilation and sepsis were found to be the strongest predictors to in-hospital mortality.

[PP-16]
Blood Urea Nitrogen/Creatinine Ratio As a Predictor of In-Hospital Mortality of Patients with Acute Heart Failure : An Insight from HF Registry in National Cardiovascular Center Harapan Kita

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ABSTRACT

Introduction: Heart Failure is known to be caused by excessive activation of neurohormonal system resulting in structural and functional disorder of the heart. BUN/Cr ratio is known to reflect this excessive activation which in turn may affect the survival of patients with heart failure.
Aim: This study aims to investigate BUN/Cr Ratio as a predictor of mortality in patients with heart failure.
Method: This single-center retrospective cohort study was conducted using data from ESC-HF registry performed at NCCHK Jakarta in 2016. From 433 patients with acute heart failure (AHF), 266 subjects were included in the study. Cut-off point of BUN/Cr was obtained using C-Statistics and defined that patients with BUN/Cr $\geq$ 24 as a high risk group. The primary outcome was in-hospital mortality.
Result: Patients with BUN/Cr$\geq$24 significantly older ($p<0.001$) and lower systolic-diastolic blood pressure ($p=0.028$ and $p=0.008$). Patients with high BUN/Cr ratio had higher length of stay (LOS) ($p=0.002$) and higher in-hospital mortalitymortality ($p=0.006$). From in-hospital mortality assessment, patients with BUN/Cr ratio $\geq$24 had higher in-hospital mortality [OR=2.71 (CI95% 1.38-5.30), $p=0.003$]. When adjusted by age, systolic, and diastolic BP in index admission, OR was 2.93 (CI95% 1.32-6.51), $p=0.008$.
Conclusion: Patients with BUN/Cr$\geq$24 had longer LOS and worse in-hospital mortality that BUN/Cr ratio could be considered as predictor of mortality in patients with acute heart failure.

[PP-18]
Association of Myocardial Infarction Site with Left Ventricular Ejection Fraction in Patients with Acute Myocardial Infarction

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ABSTRACT

Background: The Site of myocardial infarction has a role in determining the prognosis of acute myocardial infarction (AMI). Previous research associate the function of ventricle and cardiac electrical activities as factors that affect the prognosis patients in AMI.
Objective: Analyze the association of the site of myocardial infarctIon with left ventricular ejection fraction (LVEF) in patients with AMI
Methods: A cross sectional analytical research by taking subjects that were diagnosed AMI for the first time with ST segment elevation and undergone echocardiography at Abdul Wahab Sjahranie Samarinda Hospital in 2016. The Independent T test was used to analyze the association of the site of myocardial infarction with LVEF.
Results: During the study, 30 samples of AMI patients were administered by echocardiography. Anterior AMI occurred in 17 (57%) subjects, and inferior AMI occurred in 13 (43%) subjects. Anterior AMI has lower LVEF 39 ± 7% than inferior AMI 50 ± 6% ($p < 0.005$).
Conclusion: the site of myocardial infarction is associated with LVEF in patients with AMI.

Keywords: Acute myocardial infarction; LVEF; Site of Myocardial Infarction

[PP-19]
Strongest Risk Factor of Acute Limb Ischemia in Dr. Sardjito General Hospital

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ABSTRACT

Background: Peripheral Artery Disease (PAD) affects many people with variable background. Acute Limb Ischemia (ALI) is one of the spectrums which has high morbidity, limb threat, mortality, and a challenge for management. There are two most common forms of acute lumen occlusion, which are arterial thrombosis at pre-damaged atherosclerotic and non-atherosclerotic peripheral embolism. There are some risk factors that correlate with these mechanisms of ALI.
Aim: The aim of this research is to investigate the strongest risk factor of acute limb ischemia in Dr. Sardjito General Hospital.
Method: This retrospective study was designed as case control study and conducted using data from vascular registry of Dr. Sardjito General Hospital Yogyakarta. Samples were taken from patient data entered into the registry database from January 2016 – August 2018. Total sample in this study were 184, with 92 from the case group of ALI and 92 from the control group of normal. The association between ALI and risk factors was analyzed using bivariate analysis. The risk factors investigated include hypertension, diabetes mellitus, smoking, Coronary Artery Disease (CAD), Congestive Heart Failure (CHF), stroke, dyslipidemia, and familial history.
Result: There were only on significant association between ALI and risk factor on bivariate analysis. The association between ALI and CHF is significant (p=0.005) with OR=2.488 (95% CI=1.313-4.712). Meanwhile the associations between ALI and the remaining risk factors tested are not significant with p=0.171; p=0.122; p=0.061; p=0.101; p=0.231; p=0.502; p=1.000 for hypertension, diabetes, smoking, CAD, stroke, dyslipidemia, and familial history consecutively.
Conclusion: Among eight risk factors tested within this study, only one risk factor have significant association with the occurrence of ALI. The presence of CHF increase the odds of developing ALI by 2.488 times.

Keywords: acute limb ischemia; congestive heart failure; case-control

[PP-20]
Immediate Outcome after Catheter Directed Thrombolysis for Acute Lower Limb Ischemia : Study From Sardjito General Hospital Registry

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ABSTRACT

Background: Acute Limb Ischemia (ALI) is caused by a sudden decrease in limb perfusion, usually producing new or worsening symptoms and signs, threatening limb viability, and can lead to death if revascularization is not performed promptly. The use of **C**atheter **D**irected **T**hrombolysis (CDT) as a treatment of ALI has become routine clinical care in the past three decades, following the publication of three randomised controlled trials that demonstrated similar efficacy compared with open surgery. However, the immediate outcome after CDT for ALI is not as well explained, with studies reporting variable, inconsistent results and only some studies have investigated immediate outcomes such as amputation

Method: This is a descriptive study with subjects taken from Sardjito General Hospital Vascular Registry between January 2016 and June 2018. The purpose of our study was to explained the long-term outcome in patients with ALI underwent CDT at our institution.
Collected data is analyzed using SPSS 24.0.

Result: There were 119 patients with ALI who registered in vascular registry, with 78 patients (75.5%) had ALI Rutherford Class IIa-IIb. Among ALI Rutherford Class IIa-IIb patients, 47 patients (60.2%) underwent CDT as a treatment for ALI. CDT was partially successful in 15 patients (31.9%), successful in 13 patients (27.6%) and failed in 19 patients (40.5%). In partially successful CDT patients, 5 patients (38.4%) died during hospitalization and 2 patients (15.3%) required amputation. Whereas, there were 3 patients (30%) died in successful CDT patients with causes of death unrelated to ALI or its treatment and there was no need of amputation in successful CDT patient. On the other hand, there were 7 patients (36,8%) died during hospitalization and 6 patients (31,5%) required amputation in failed CDT.

Conclusion: Successful CDT achieves good intermediate clinical outcome, reducing the need of amputation in patients with ALI Rutherford Class IIa-IIb.

Keywords: Acute limb ischemia; catheter directed thrombolyis; amputation.

[PP-21]
Predictor of Mortality in Patients with Acute Limb Ischemia in Sardjito General Hospital

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ABSTRACT

Introduction: Acute Limb Ischemia is a dreadful disease and may resulted in a limb-threatening or even life-threatening state. Despite of that, the disease is actually treatable and its complication can be anticipated, including death. Predictor of mortality, which is important in prevention of death, have been investigated in a small number of research and the result is inconsistent.
Aim: The aim of this research is to determine predictors of mortality in Patients with Acute Limb Ischemia in Sardjito General Hospital.
Method: Retrospective data of patients diagnosed with acute limb ischemia was collected from 2014 to 2018 at Sardjito General Hospital. Patients demographic and clinical variables were recorded in 103 patients with acute limb ischemia. Mortality predictors were determined in bivariate analysis of categorical variables and linear regression of numeric variables.
Results: Percentages of acute limb ischemia leading to death in Sardjito General Hospital was 60,2%. Based on bivariate analysis, 3 variables were meaningfully associated with mortality in patients with acute limb ischemia. These variables are age, history of hypertension, and PTA intervention in patients. Presence of hypertension is significantly correlated with mortality (p=0.044) with mortality risk 2.35 times higher (OR = 2.35, CI 95%: 0.98 – 5.65) in group with history of hypertension. Age also considerably linked (p=0.003) with mortality 5.18 times higher (OR= 5.18, CI 95% 1.62 – 16.67) in the group older than 65 years old compared to the group younger than 65 years old. In addition to that, PTA intervention is also meaningfully interrelated to mortality (p=0.019) with mortality risk 3.83 times higher in patients that didn't receive PTA intervention. Diabetes Mellitus, smoking, coronary heart disease (CHD), Rutherford class, catheter-directed thrombolysis, embolectomy and congestive heart failure (CHF) has insignificant positive correlations with mortality.
Conclusion: There is a significant increase in mortality in patients with acute limb ischemia with increasing age and history of hypertension. PTA intervention also found meaningfully associated with less risk of death.

Keywords: Acute Limb Ischemia; Mortality; Predictor, Outcome

[PP-22]
The Validity of Duke Treadmill Score in Predicting The Severity of Coronary Lesion in Patient With Diabetes Mellitus and Non Diabetes Mellitus with Positive Treadmill Test

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ABSTRACT

Introduction: Coronary Artery Disease (CAD) is a major cause of morbidity and mortality in worldwide. One of the risk factors of CAD is Diabetes Mellitus (DM) in which DM patients have two to four times greater risk of heart disease. The Treadmill Test is still widely used for the stable CAD screening test, where the prognosis is assessed using a Duke Treadmill Score (DTS). This study was conducted to test the validity of DTS in predicting the severity of coronary lesion of CAD patients.

Methods: This study is a cross sectional study perform in subject with stable CAD ages 39-78 years who underwent Treadmill Test with positive ischemic response and has been done Coronary Angiography in Cardiac Polyclinic at Dr. Mintohardjo Navy Hospital between period of October 2014 and November 2017, and meets both inclusion and exclusion criteria.

Results: In this study there were obtained 27 subjects which consist of 10 DM patients (37%) and 17 Non DM patients (63%). From ROC (Receiver Operator Curve) determined the DTS cut of point at the value of -4.925. In the DM group, the sensitivity, specificity, Positive Predicitve Value, and Negative Predictive Value were 66.7%; 100%; 100% and 25%. In the Non DM group, the sensitivity, specificity, Positive Predicitve Value, and Negative Predictive Value were 71,4%; 100%; 100% dan 83,3%. In both groups there was a negative correlation between the DTS value and the involvement of the number of coronary lesions where the smaller the DTS value, the greater the number of coronary lesion involved .

Conclusions: DTS can predict the severity of coronary lesion based on the number of blood vessels involved.

Keywords: CAD; DTS; treadmill test

[PP-23]

The Relationship Between Left Ventricular Function and Health-Related Quality of Life in Adults with Pulmonary Arterial Hypertension Related Uncorrected Secundum Atrial Septal Defect

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ABSTRACT

Background: Patients with Pulmonary Arterial Hypertension (PAH) related uncorrected secundum Atrial Septal Defect (ASD) often present limitation of their daily activities. Health related quality of life (HRQoL) is an individual's perceived mental and physical functioning that impact health status on quality of life. However, limited data exist on the impact of left ventricular function on HRQoL in PAH related secundum ASD patients. The aim of the study was to investigate the relationship between left ventricular function parameters (Cardiac Output (CO), Cardiac Index (CI), and Stroke Volume (SV)) and HRQoL in PAH patients related uncorrected secundum ASD. **Methods:** This is a cross sectional study for PAH patients related uncorrected secundum ASD. The data were collected from COHARD-PH registry at Dr Sardjito Hospital from April 2016 to August 2017. Left ventricular function parameters (CO, CI, SV) were measured using Right Heart Catheterization (RHC) and HRQoL was measured using the EQ-5D-3L questionnaire.

Result: There were 43 patients with PAH related uncorrected secundum ASD enrolled in this study. This study showed that EQ-VAS has no correlation with cardiac output ($r = 0.045$, $p = 0.778$), cardiac index ($r = 0.024$, $p = 0.882$) and stroke volume ($r = 0.095$, $p = 0.548$) and the utility score also has no correlation with cardiac output ($r = 0.099$, $p = 0.533$), cardiac index ($r = 0.143$, $p = 0.365$) and stroke volume ($r = 0.037$, $p = 0.817$).

Conclusion: The HRQoL in adult patients with PAH related uncorrected secundum ASD does not associate with left venticular function parameters.

Keywords: Health related quality of life; atrial septal defect; pulmonary arterial hypertension; left ventricular function; cardiac output; cardiac index; stroke volume

[PP-24]
Predictor of Amputation in Patient with Acute Limb Ischemia in Dr. Sardjito General Hospital

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ABSTRACT

Introduction: Peripheral Artery Disease (PAD) is a common cardiovascular problem that is often underdiagnosed. Acute Limb Ischemia (ALI) is one of the peripheral artery diseases that occurs when there is a sudden arterial occlusion in the limb. Acute limb ischemia has a high mortality rate and requires amputation if not treated properly. Predictor of amputation is important to prevent mortality and increasing quality of life.
Aim: To determine predictors of amputation in patients with Acute Limb Ischemia in Dr. Sardjito General Hospital.
Method: This study was conducted using the vascular registry of Dr. Sardjito General Hospital Yogyakarta. Samples were taken from patient data entered into the registry database from 2014 to 2018. Total sample in this study were 64, with 29 patients were grouped into those who had undergone amputation and 35 patients were those who did not undergo amputation. Amputation predictors were determined based on clinical, hematological, and amputation data. The data were analyzed using unpaired *t*-test, χ^2 test, and receiver operating characteristic (ROC) curve.
Results: A total of 45.3 % of Acute Limb Ischemia patients were undergone amputation in Dr. Sardjito General Hospital. Based on bivariate analysis there were no significant cardiovascular risk factors that associated with amputation in acute limb ischemia patients. Neutrophil-to-lymphocyte ratio (NLR) as a hematological parameter of inflammatory status was found to be significantly higher in amputation group than in the no-amputation group (p=0.022). The ROC curve of NLR showed that NLR value of ≥5.65 had 86.2% sensitivity and 48.6% specificity in predicting amputation in ALI patients (area under the curve=0.668, p=0.021). Based on the cut off value, NLR was significantly associated with amputation (p=0.003) with amputation risk 5.96 times higher (OR=5.963, CI 95%=1.697-20.53) in group with NLR value of ≥5.65. Neutrophil-to-lymphocyte ratio reflects the inflammation status of neutrophilia and the relative lymphopenia of a cortisol-induced stress response that deliver important information of vascular event.
Conclusion: In this study, NLR was associated with amputation in acute limb ischemia patient, and a NLR cut off of 5.65 was found to predict amputation in ALI patient.

Keywords: acute limb ischemia; predictor; amputation

[PP-25]
Catheter Directed Thrombolysis Versus Surgical Embolectomy for Acute Limb Ischemia : Outcome of Acute Limb Ischemia Patient in Sardjito Hospital

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ABSTRACT

Background: Acute Limb ischemia (ALI) is an emergency condition to the limb and life. Rapid recognition and treatment are paramount to prevent mortality and limb amputation. There are two primary management of ALI in Sardjito Hospital, Catheter Directed Thrombolysis and Surgical Embolectomy.
Aim: to compare outcome of Catheter Directed Thrombolysis and Surgical Embolectomy on ALI Patients at Sardjito Hospital
Methodes: This descriptive study was performed to patients diagnosed as ALI which collected from 2014 to 2018 that had complete medical record. There are 78 patients were diagnosed as ALI by clinical signs and symptoms. 54 Patient were performed either CDT (29 patients) or Surgical Embolectomy (25 patients). Patient in hospital mortality and amputation status were observed during in hospital treatment.
Results: From 29 patients were performed CDT, categorized as rutherford 2A is 13 patients, 2B is 11 patients, rutherford 3 is 5 patients. CDT patients had outcome of amputation were 10 patients (34%) and in hospital mortality were 12 (41%). Embolectomy patients, categorized as Rutherford 1 is 1 patient, rutherford 2A 4 patients, rutherford 2B is 9 patients, rutherford 3 is 11 patients. Embolectomy had outcome of amputation 15 (60%) and in hospital mortality 14 (56%). There are no significance difference between CDT and embolectomy in ALI patient's outcome.
Conclusion: Patients that underwent embolectomy procedure are higher in number of amputation and in hospital mortality but statistically not significant.

Keywords : Acute limb Ischemia; Catheter directed thrombolysis; embolectomy; amputation; in hospital mortality