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Background

Exercise stress test (EST) is used for the detection of coronary artery disease (CAD), evaluation of physical capacity and predict overall prognosis.

Objectives

To determine the utilization of EST in a military medical unit and the association of positive stress test among those with cardiovascular (CV) risk factors.

Materials and methods

A retrospective review of all EST performed in Hospital Angkatan Tentera Tuanku Mizan from January 2015 till December 2019. Demographic data, EST indication, CV risk factors and Framingham risk scores (FRS) were extracted from medical records.

Results

A total of 719 EST performed in 627 patients. Majority of patients were males 84.8% ($n = 532$), with the mean age of 49.7 (SD 12.4) years old. Most of the patients were military personnel 48.8% ($n = 351$), followed by army veterans 34.6% ($n = 249$), relatives 11.8% ($n = 85$) and civilians including those working in Ministry of Defence 4.7% ($n = 34$). The indications of EST were for general screening in those with CV risk factors 26.8% ($n = 193$), atypical chest pain 22.7% ($n = 163$), annual surveillance in those with established CAD 19.1% ($n = 137$), recent acute coronary syndrome 15.6% ($n = 112$), evaluation for possible CAD indicated from other tests 9% ($n = 65$), senior officer medical health screening 1.8% ($n = 13$), cardiac arrhythmia 1.8% ($n = 13$), pre-chemotherapy 0.4% ($n = 3$) and others 0.4% ($n = 3$). About one-third (35%) of patients had established CAD. The CV risk factors include dyslipidemia 64.3%, hypertension 50.2%, overweight 49.9%, diabetes mellitus 36%, family history 35%, obesity 26.6% and current smokers 34.2%. The proportion of patients with FRS of 20% or more was 40.8% ($n = 293$). EST were positive in 45.1% ($n = 327$) of the tests performed. 74 out of 163 (45.4%) of those with atypical chest pain had positive EST. 43.2% of positive EST occurred in those with FRS 20% and above (140 out of 324). There was a significant association between positive EST and FRS (λ^2 value = 12.9, $p < 0.05$).

Conclusions

Majority of EST were performed in military personnel for the evaluation of CAD in those who are symptomatic, and with established cardiovascular risks. Those with higher Framingham risk scores were likely to have a positive EST.

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Clinical outcome of COVID-19 patients with cardiac disease in Queen Elizabeth Hospital Sabah

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Background

Coronavirus disease 2019 (COVID-19) also known as severe acute respiratory syndrome has become a global pandemic that affected billions of people around the world. Clinical studies showed patients with pre-existing cardiovascular diseases will have higher risk of mortality and poor clinical outcome. Therefore, our study's aim is to

describe the characteristics and outcome among Covid-19 patients with pre-existing cardiovascular diseases or patients who developed cardiovascular complications.

Method

This is an observational study and data collected from 9th October 2020 till 11th June 2021. Inclusion criteria include all confirmed (confirmed with RT-PCR) COVID-19 that required hospitalisation in Hospital Queen Elizabeth (HQE) and HQEII or any patients referred to cardiology team.

Result

Total of 53 Covid-19 patients recruited with mean age of 54.75y.o and 69.6% ($n = 32$) were male. There were 43.5% ($n = 20$) COVID-19 with pre-existing of cardiovascular disease, 23.9% ($n = 11$) hypertension, 13% ($n = 5$) chronic kidney disease, 8.7% ($n = 4$) diabetic mellitus, another 8.7% ($n = 4$) with history of CVA and 6.5% ($n = 3$) dyslipidaemia. There were 69.8% ($n = 37$) patient with covid-19 stage 3 and above. There are few complications that arise during the COVID-19 infection. These include heart failure 26.4% ($n = 14$), myocarditis 26.4% ($n = 14$), arrhythmia 13.2% ($n = 7$), acute myocardial infarction 11.3% ($n = 6$), pulmonary embolism 11.3% ($n = 6$) and pericarditis 1.9% ($n = 1$). A Total of 11.3% ($n = 6$) COVID-19 patients death. Four of these patients have pre-existing cardiovascular disease. Out of 6 mortality, 2 patients died due to acute coronary syndrome.

Conclusion

Our study showed, COVID-19 patients with pre-existing cardiovascular disease and multiple comorbidities will have higher mortality.

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The effect of trimetazidine on left ventricular function and hospitalisation in ischaemic heart failure patients in Hospital Universiti Sains Malaysia

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Background

Trimetazidine is primarily used in persistent angina in ischaemic heart disease patients. Studies showed the potential benefit of trimetazidine in heart failure patients. They were mainly in patients with IHD, DM, and/or elderly patients. Trimetazidine has shown to improve LVEF and hospitalization in this group of patients. Nevertheless, trimetazidine is yet to be used as a first line therapy for HF with IHD. The study objective was to see the effect of trimetazidine on LVEF in IHD patients with reduced EF and its effect on the frequency of hospitalization.

Methods

This is a comparative cross-sectional study to assess the effect of trimetazidine if added to conventional treatment in IHD patients with HF. This study was conducted from November 2020 until March 2021, involving patients from cardiology clinic HUSM. Convenient sampling was used, and samples were divided into trimetazidine and control group. Baseline EF, age, gender, comorbidities and medications were obtain retrospectively from patients' folder. The