

**PP77 A 4 YEAR STUDY ON  
UTILIZATION OF TENECTEPLASE  
AND OUTCOMES FOR ST-  
ELEVATION MYOCARDIAL  
INFARCTION IN A PRIMARY  
PERCUTANEOUS CORONARY  
INTERVENTION CAPABLE  
HOSPITAL**

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**INTRODUCTION:**

Institut Jantung Negara (IJN) is a tertiary cardiac center located in Kuala Lumpur with Percutaneous Coronary Intervention (PCI) services. Primary PCI (PPCI) is the preferred treatment for ST elevation myocardial infarction (STEMI) if performed in a timely manner. When PPCI is not available or contraindicated, fibrinolytic therapy should be administered. Tenecteplase is the agent of choice for thrombolysis in IJN. We reviewed Tenecteplase use in IJN from 2017 – 2020.

**METHODS:**

This retrospective observational study was carried out between 1st January 2017 until 31st December 2020. All patients who were administered Tenecteplase in Emergency Department during this period were included in the analysis. Data collected from patient's medical records were analyzed using Excel software. We investigated the indication and the outcomes of patients treated with Tenecteplase.

**RESULTS:**

A total of 88 patients were treated with Tenecteplase. Utilization doubled from 15 to 18 patients per year from 2017 to 2019 to 37 patients in 2020. Indications for use included STEMI 90% (n=79), Peripheral Artery Disease 6% (n=5), Pulmonary Embolism 2% (n=2) and Pediatric Congenital Heart Disease 2% (n=2). The reasons for Tenecteplase use instead of PPCI in the 79 STEMI patients were - patient instability 32% (n=25), previous Coronary Artery Bypass Graft (CABG) or planned for CABG 31% (n=24), Cardiologist preference 24% (n=19) and no consent for PPCI 10% (n=8). Other reasons were financial constraints and unavailability of catheterization laboratory. In terms of STEMI outcomes, 81% (n=64) had successful thrombolysis where 36 of them proceeded with angiogram and 21 had PCI. 19% (n=15) had failed thrombolysis where 10 proceeded with angiogram and 8 went for rescue PCI. 94% (n=60) with successful thrombolysis survived to discharge compared to 40% (n=6) with failed thrombolysis. Overall mortality rate for STEMI patients treated with Tenecteplase was 16%.

**DISCUSSION**

The increased use of Tenecteplase for STEMI in 2020 was likely due to change in practices during Covid-19 pandemic as reflected by cardiologist preference in choosing thrombolysis over PPCI. There was high survival rate in patients with successful thrombolysis. Overall mortality rate reflects the high number of unstable patients who required thrombolysis.

**KEYWORDS**

Tenecteplase, STEMI