

## **Abstract Submission Form**

The Women's Heart Center Program Committee is accepting abstract submission forms through **August 15, 2025**. Completed forms should be emailed to WHC@TheChristHospital.com.

Abstract submissions should be gender- and sex-specific research pertaining to one of the program topics outlined below.

The Program Committee wishes to encourage young scientific investigators and will reward up to 4 abstracts/posters submitted by presenters considered early career (definition provided below). First place will receive \$1000, second place will receive \$500, and two honorable mentions will each receive \$250.

The presenting author will be sent an email with the status of the submission by **August 22**, **2025**. If your abstract is accepted, your notification will contain complete presentation information. However, please note the following:

- All human subject research must conform to the principles of the Declaration of Helsinki of the World Medical Association.
- The presenting author should be able to provide documentation of IRB approval if requested.
- The Program Committee is unable to reimburse presenters for travel, hotel, or per diem expenses.
- Submission of an abstract constitutes a commitment by the presenting author (or designee) to present inperson at the symposium on October 3, 2025, during the following times:
  - Registration & Networking: 7:00 8:00 am
  - o Networking Lunch: 12:00 1:30 pm
  - o Poster Session Award Announcement: 4:50 5:10 pm
- All accepted abstract presenters must register for the symposium via Eventbrite and pay the applicable registration fees (trainees and invited speakers will have the registration fee waived).
- If an author wishes to withdraw an abstract, please email <u>WHC@TheChristHospital.com</u>.

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None		
Abstract Topic (must be ger	ider- or sex-specific)	
☐ Preventative cardiology	☐ General cardiology	

**Title:** Include the full title as it will appear on the poster.

☐ Heart failure

☐ Electrophysiology

☐ Social Determinants of Health

STEMI after Intravenous Thrombolysis for Acute Ischemic Stroke

**Background:** In an initial paragraph, provide relevant information regarding the background and purpose of the study, preferably in no more than two to three sentences.

☐ Cardio-obstetrics

☐ Precision Medicine

☐ Coronary Microvasculature

☐ Cardio-oncology

☐ Mental Health

☐ Cardiovascular Imaging

Acute ischemic stroke (AIS) is characterized by sudden onset of neurological deficits lasting more than 24 hours, resulting from focal cerebral ischemia. Current guidelines from the American Stroke Association recommend intravenous thrombolysis within 4.5 hours of symptom onset for patients with disabling strokes, regardless of the initial NIH Stroke Scale score. While bleeding complications remain the most recognized adverse effects of thrombolytic therapy, myocardial infarction (MI) following intravenous thrombolysis has also been reported, though it remains rare.

We describe a rare case of a woman who presented with AIS, received intravenous Tenecteplase (TNK), and subsequently developed an inferior wall ST elevation MI.

**Methods:** Briefly state the methods used.

A 76-year-old woman presented with new-onset aphasia and dysarthria with no evidence of hemorrhage on computed tomography of head. She received IV TNK, leading to symptom resolution. MRI could not be done due to severe claustrophobia. She had no relevant family history and denied tobacco or alcohol use.

Several hours post-TNK, she developed chest pain and 12-lead EKG revealed ST-segment elevation in inferior leads

with reciprocal changes (picture A). High sensitivity troponin peaked around 18,000 ng/L (normal<14ng/L). Echocardiography revealed inferobasal wall hypokinesis with preserved LVEF. Given recent thrombolysis and resolution of ischemic changes (chest pain resolved after 1 hour and ECG changes after 3 hours – picture B), interdisciplinary team (cardiology, neurocritical care) decided to proceed with delayed catheter revascularization strategy. Two days later, left heart catheterization revealed severe stenosis in the mid right coronary artery and proximal posterolateral branch (picture C). The patient underwent PCI with placement of two overlapping drug-

eluting stents, achieving excellent angiographic results (picture D). The post-PCI course was uncomplicated. On day 5, she was discharged with aspirin, ticagrelor, atorvastatin, metoprolol and valsartan.

**Results:** Summarize the results in sufficient detail to support the conclusions.

This case describes a female patient who developed an ischemic cardiac event following intravenous thrombolysis. The exact mechanism remains uncertain, but several theories are possible: 1. atherosclerotic plaque rupture shortly after stroke and thrombolytic drug administration facilitated by relative hypercoagulable state (TNK half-life 20-25 minutes); 2. vasospastic event causing hemodynamically significant stenosis in the vessel with prior atherosclerotic disease augmented by sympathetic overdrive in the event of cerebral ischemia; 3. arterial embolism triggered by thrombolytic administration (possibly cardiac source). The angiographic appearance of the lesion was more suggestive of atherosclerotic disease. The patient was not found to have intra/extracardiac thrombosis. No significant arrhythmia detected during hospitalization. We may presume that the patient developed STEMI secondary to ruptured atherosclerotic plaque with thrombus formation during or shortly after TNK administration, which caused the early dissolution of the thrombus and resolution of symptom/ECG changes.

Management of a STEMI following IV hemolytic administration poses a significant clinical dilemma and management depends largely on the patient's hemodynamic status and clinical development as this population possesses significant risk of critical neurological bleeding while experiencing myocardial infarction. In hemodynamically stable patients with improvement of ischemic signs and symptoms, delayed revascularization may be a reasonable approach, as the risks associated with early intervention may outweigh the benefits. Click or tap here to enter text.

**Conclusions:** Concisely state the conclusions reached.

MI and AIS, while both ischemic events, present a significant therapeutic equipoise when they occur concurrently. Treatment strategies aimed at one condition may worsen or complicate the other, necessitating a careful balance between ischemic and hemorrhagic risks. In such complex cases, a multidisciplinary approach involving cardiology and neurology specialists is essential to facilitate shared decision-making and individualized patient management based on the clinical context.

**Tables/Figures/Graphics:** Include images that are part of your submission here. Images should be high resolution and have a file type of "gif", "jpg", or "jpeg".

