**PREMATURE MYOCARDIAL INFARCTION AS THE PRESENTING SIGN OF HYPERCOAGULABLE SYNDROME**

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**Introduction**: Premature myocardial infarction (MI) in a young patient proves to be a challenge to manage. In the absence of family history or provoking factors, etiology can be difficult to determine. Hypercoagulable syndromes should be considered as an etiology for premature MI, as future management may be influenced by the presence of these syndromes. We report the case of a young heart-kidney transplant recipient presenting with multiple thrombotic events including premature MI, LVAD thrombosis, and deep vein thrombosis (DVT) in the setting of May-Thurner Syndrome (MTS) exemplifying the importance of thorough hypercoagulability testing. **Case Report**: Our patient is a 41-year-old male with a history of MI at age 37, resulting in ischemic cardiomyopathy complicated by cardiogenic shock requiring LVAD placement for bridge to transplant. Patient’s post LVAD course was complicated by recurrent LVAD thrombosis despite adequate anticoagulation (AC) requiring two device exchanges. Hypercoagulability testing was limited due to the necessity of chronic AC. One month after undergoing heart-kidney transplant, patient presented with left lower extremity (LLE) pain and difficulty ambulating with duplex ultrasound showing DVT of LLE extending from the L common iliac vein to the L popliteal vein, requiring thrombectomy. Venography identified narrowing of the L common iliac vein confirming the diagnosis of MTS and an iliac vein stent was placed. Repeat hypercoagulability testing revealed an elevated factor VIII (FVIII) activity level to 319% of normal, warranting long-term AC with an elevated therapeutic INR range and high dose aspirin. Patient has had no recurrent thrombosis since starting this regimen.

**Summary**: Patients with multiple thrombotic events should undergo thorough hypercoagulability testing to identify risk for future thromboses and need for AC. Traditionally, elevated FVIII levels are thought to be an acute phase reactant, not necessitating AC. However, it has recently been shown that patients with an elevated FVIII level are at significant risk for thrombosis and require long-term AC. Our case highlights the importance of early FVIII level testing in hypercoagulability evaluation.