

**Residents and Fellows Research Day 2012**  
**Recipient, Lang Research Award of Excellence**

**Oral Presentation**

**Outcome Determinants in Uterine Papillary Serous Carcinoma Based on Clinico-Pathological and Treatment Factors**

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**Purpose:** To identify prognostic factors for overall survival (OS) and progression-free survival (PFS) for patients with uterine papillary serous carcinoma (UPSC).

**Methods:** IRB approval was obtained for the study. Between January 2000 and 2010, 429 patients with endometrial cancer were diagnosed at our center and 62 were UPSC, International Federation of Gynecology and Obstetrics (FIGO) stages I-IV. All patients underwent hysterectomy. The pathological specimens were reviewed again independently by a single pathologist. The clinic-pathological features, adjuvant treatment, and relapse characteristics of 44 women with complete treatment information were analyzed to determine prognostic and predictive factors for OS and PFS using the Kaplan-Meier product limit method and log-rank tests.

**Results:** Median follow-up was 49.3 months. Median OS was 50.4 months. Median PFS was not estimable. Two-year OS was 83% and decreased to 48% at 5 years. Two-year PFS was 82% and decreased to 75% at 5 years. Age (older), stage (higher), tumor size (larger), tumor not arising from a polyp, parametrial involvement, LVI and no adjuvant treatment, were prognostic factors associated with poorer OS (all  $p < 0.05$ ). Specifically, combined adjuvant chemotherapy and radiation therapy (Pelvic external beam  $\pm$  Vaginal brachytherapy or vaginal brachytherapy alone) was significantly associated with longer OS as compared to no adjuvant treatment ( $p < 0.0386$ ). Higher stage and parametrial involvement were prognostic factors associated with poorer PFS (all  $p < 0.05$ ). OS and PFS had no significant association with race, depth of invasion, lower uterine segment involvement, peritoneal cytology, and lymph node involvement ( $p > 0.05$ ).

**Conclusions:** In uterine papillary serous cancer, adjuvant chemotherapy and radiation therapy as well as tumors arising from a polyp were associated with improved overall survival, while early stage disease was associated with improved progression free and overall survival.

**Oral Presentation**

**Coronary Stent Diameter Variability Among Ethnic Groups Undergoing Revascularization for ST-Elevation Myocardial Infarction**

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**Background:** Studies have suggested smaller sized coronary vessels in the South Asian population compared to other ethnic groups, possibly contributing to their higher incidence of coronary artery disease (CAD). However, prior studies examining coronary vessel size compared South Asians to Caucasians without CAD. There is no data comparing coronary vessel size among different ethnic groups in patients presenting with ST-elevation myocardial infarction (STEMI).

**Objective:** Given our highly diverse ethnic population, we sought to examine ethnic variations in stent diameter used for revascularization in STEMI patients presenting to our institution.

**Methods:** This is a retrospective cohort analysis assessing stent diameter used for revascularization in patients presenting to New York Hospital Queens with STEMI from June 2008 to December 2010. Patients were divided into five ethnic groups based on self-reporting, which include Caucasians, Hispanics, African Americans, South Asians, and East Asians. Angiographic features recorded include culprit vessel, type of stent, stent location, number of stents used, stent diameter, and stent length.

**Results:** A total of 244 patients presented with STEMI and underwent PCI, of which 54% were Caucasian, 13% Hispanic, 4% African American, 18% East Asian, and 11% South Asian. Across the 5 ethnic groups, there were no significant variations in the culprit vessel involved. Additionally, there were no significant ethnic differences in the type of stent used, location of stent, number of stents used, and average stent length. Notably, South Asians had a significantly smaller diameter stent placed compared to the other ethnic groups ( $2.84 \pm 0.82$  mm vs  $3.22 \pm 0.52$  mm,  $p=0.03$ ).

**Conclusions:** Stent diameter used for revascularization during STEMI was smaller in South Asians compared to the other ethnic groups. This finding supports the observation made in the literature that South Asians have smaller coronary arteries, which may contribute to a greater incidence of CAD in this ethnic group. Our results indicate that across five ethnic groups, South Asians with STEMI have a smaller diameter culprit vessel.

**Poster Presentation**

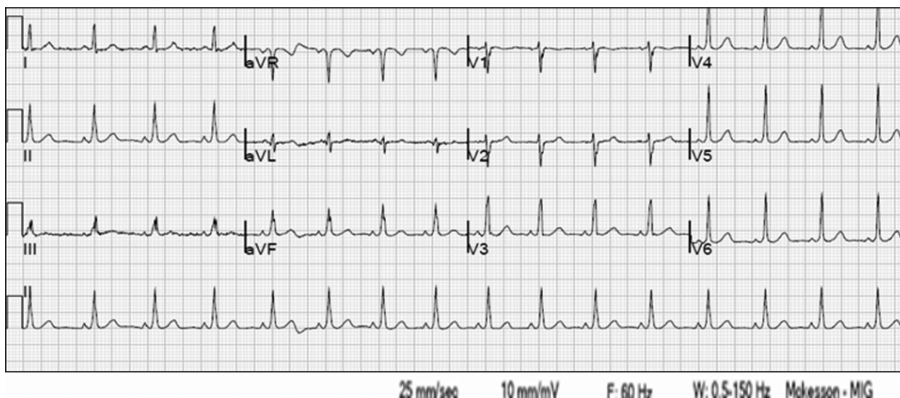
**Convulsive Syncope in a Patient With Reentrant Tachyarrhythmia\***

Harmony Leighton, D.O., Pratik Panchal, M.D., Cheng Ruan, M.D.,  
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Syncope and seizures are often clinically indistinguishable. It has been shown that many patients who present with cardiogenic syncope develop myoclonus secondary to cerebral hypoperfusion, otherwise known as convulsive syncope.

A 26 year old female with no significant past medical history and a family history of a maternal aunt with frequent fainting spells presented after witnessed seizure-like activity. She reported sudden onset of palpitations and diaphoresis while walking, followed by a witnessed loss of consciousness, myoclonus, and urinary incontinence. Her vital signs on admission were unremarkable. Physical exam revealed that she was at her baseline mental status without gross neurological deficits. The patient denied any prior history of syncope or seizures, but had experienced palpitations the previous night. CBC and electrolytes were within normal limits. She underwent a CT scan of the head which was negative. A routine EEG was performed which showed no epileptiform activity. The EKG showed sinus rhythm at 85 bpm, a shortened PR interval (0.1 seconds) and a possible delta wave which raised concern for preexcitation. She was subsequently taken for electrophysiologic study, which revealed a left lateral accessory pathway. With atrial pacing, the pathway conducted 1:1 down to a cycle length of 250ms (240 BPM). Orthodromic AVRT was induced on isuprel with a rate of 230 BPM. The pathway was successfully ablated using a transeptal approach.

Though the presentation may be similar, differentiating cardiogenic syncope from a primary seizure is critical, as misdiagnosis may be life-threatening. A rapidly conducting accessory pathway may induce syncope due to hypotension associated with extreme tachycardia, or as a result of ventricular fibrillation and aborted sudden cardiac death. This case illustrates the importance of considering a cardiac etiology as an underlying cause in a patient who presents with unexplained seizure.



\*Dr. Leighton also received an award for the poster presentation, "Effect of an Electronic Ordering System on Adherence to ACC Guidelines for Cardiac Monitoring," which is not available for inclusion here.

**Poster Presentation**

**Reduced Diagnostic Accuracy of Stress EKG Test in Patients With Left Anterior Fascicular Block: A Retrospective Analysis**

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**Background:** Presence of left anterior fascicular block (LAFB) on the resting EKG has not been considered a limitation for stress EKG interpretation for inducible myocardial ischemia. Few reports described how developing LAFB during exercise stress testing "masked/concealed" ischemic EKG changes. It is not clear if patients with LAFB on their resting EKG will fail to show ST-segment depressions with inducible myocardial ischemia.

**Methods:** We screened 3879 patients who were referred to our laboratory for stress EKG and single photon emission computed tomography (SPECT) testing from January 2007-June 2010. 2476 patients were excluded: 1439 (58.1%) pharmacological stress test, 196 (7.9%) LBBB, 352 (14.2%) insufficient EKG quality, 366 (14.8%) non-specific intraventricular conduction abnormalities, 132 (3.4%) suboptimal SPECT images, 62 (1.6%) paced rhythm. Of 1403 patients assessed, 62 patients were found to have LAFB, 24 of which had concurrent right bundle branch block (RBBB). The rest of the patients (ie. 1341) were considered as a control group. All patients underwent maximal treadmill exercise testing. A positive ischemic response was defined using standard criteria. A dual isotope SPECT stress and resting studies was performed.

**Results:** According to the results of SPECT imaging, exercise testing was truly positive in 129 controls (9.6%) and in 7 patients with LAFB (11.3%). Stress induced ST-segment depressions were noted in 375 controls (28%) and in 9 patients with LAFB (14.5%). The EKG stress test was "electrically" false positive in 246 controls (18.4%) and in only two patients with LAFB (3.2%). On the other hand, exercise EKG was false negative in 55 controls (4.1%) and in 11 patients with LAFB (17.7%). The presence or absence of RBBB along with LAFB did not affect the diagnostic accuracy of EKG stress testing.

**Conclusions:** Presence of LAFB on the resting EKG decreased the diagnostic accuracy and sensitivity (70% to 39%) of the exercise EKG stress test and an imaging modality and/or other functional tests should be considered in those patients. Finally, the exercise induced ST-segment depression in the presence of LAFB has very high specificity (96% vs 79%) and positive predictive value (78% vs 34%) as a marker of myocardial ischemia and a positive stress test.