Supervisor/Project Information Form

Due February 22 2018 by email to crems.programs@utoronto.ca

PLEASE SUBMIT IN WORD FORMAT ONLY. PDF will not be accepted

Supervisor Name: Dr. John Byrne

Hospital/Research Institution: Toronto General Hospital/Toronto General Research Institute

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Field of Research (2 keywords): vascular, radiology

Department: Department of Surgery, Division of Vascular Surgery

School of Graduate Studies Appointment (IMS, LMP, IHPME etc)? No

Project Title: Characterization of patients with penetrating aortic ulcers.

Brief Project Description (<300 words): Acute aortic syndromes are a spectrum of aortic emergencies and comprising intramural hematoma, penetrating aortic ulcer and aortic dissection. Penetrating aortic ulcers begin as ulcerated atherosclerotic plaques which progress to ulceration into the medial layer. This may lead to the development of an intramural hematoma, pseudoaneurysm and even aortic dissection and rupture. Patients with penetrating aortic ulcers may present as an acute aortic syndrome. However, many are diagnosed incidentally with the increased use of CT imaging. These incidental diagnoses anecdotally occur in patients with severely atherosclerotic aortas. This patient population is very poorly described in the literature, with some of the largest case series only having in the region of 90 patients. The purpose of this study is to comprehensively characterize this patient population and their outcomes, and to determine if they are a subset of patients with more severe vascular risk factors, or they have more in common with patients with aortic disease/acute aortic syndromes. Patients at University Health Network with a radiological diagnosis of penetrating aortic ulcer will be identified using our Montage radiology search software. Using our comprehensive electronic medical record at UHN, the patient group will be characterized, and outcomes determined. They will be compared to patients with definite acute aortic syndromes. Data analysis will be performed on patient and imaging specific factors to identify correlations with outcomes, and to understand the nature of this patient population.