

2019 and 2020 calendar years. A survey was sent to each site detailing questions on clinic and procedural volumes and wait times pre and post pandemic restrictions. Descriptive statistics were used with student t test to compare groups. Pre-pandemic (2019) there were 19326 ACHD clinic visits across Canada with 296 (1.5%) being virtual. During the first year of the pandemic (2020) there were a similar number of total clinic visits 20532, however 11412 (56%) visits were virtual $p < 0.0001$. Total procedural volumes for ACHD care are presented in figure 1. Pre-pandemic mean estimated clinic waiting times (in months) for non-urgent consults were: 5.4 + 2.57 vs. pandemic wait time 6.5 + 4.22, $p=0.65$, for elective ACHD cardiac surgery 6.0 + 3.46 vs. 7.3 + 4.59, $p=0.47$, for ACHD electrophysiology procedures 6.3 + 3.33 vs 6.7 + 3.27 $p=0.72$, for ACHD percutaneous intervention 4.6 + 3.89 vs 4.4 + 2.33 $p=0.74$.

CONCLUSION: During the pandemic, despite social distancing restrictions, the use of virtual clinics visits have helped to maintain continuity in ACHD clinical care. The procedural volumes and wait times for consultation, percutaneous and surgical interventions were not delayed.

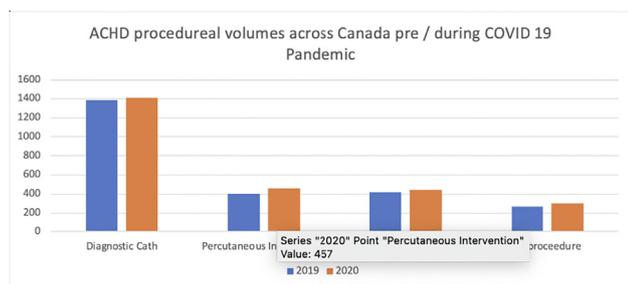


Figure 1: Absolute numbers across Canada for specialized ACHD diagnostic cardiac catheterization, ACHD percutaneous intervention, ACHD surgery and procedures, prior to (2019) and during (2020) the COVID-19 pandemic. No statistical difference between groups. ACHD = Adult congenital heart disease, Cath = catheterization, EP = electrophysiology

based on anatomical complexity scores, a global comprehensive approach could help guiding the clinical decision and allow predicting CTO-PCI success. In this study, we aimed to evaluate angiographic predictors of procedural success.

METHODS AND RESULTS: This single-centre prospective observational study was conducted in an academic tertiary care medical center and patients were recruited between January 2014 and March 2020. CTO was defined as 99-100% occlusions with Thrombolysis in Myocardial Infarction (TIMI) 0 flow with at least 3-month duration. The primary inclusion criteria were the presence of refractory ischemic symptoms despite optimal medical therapy and non-invasive imaging demonstrating reversible ischemia. A total of 255 patients were consecutively enrolled in this registry. Average age was 65±10 and 75% were males. Hypertension and diabetes were present in 73% and 27% of patients respectively. The left ventricular ejection fraction (LVEF) was above 50% in 73% of patients. The mean SYNTAX and J-CTO scores were 19.3±8.6 and 2.26±1.11 respectively. The overall CTO-PCI success rate was 86.4%. Univariate analysis showed that a high J-CTO score >1 predicted decreased CTO PCI success in 83.5% vs 94.1%, $p=0.038$. In addition, patients with procedural success had a lower percentage of history with bypass graft (73.8% vs. 88.8%, $p = 0.004$), significant left main stenosis (61.9% vs. 88.9%; $p=0.003$), reference vessel diameter < 3mm (82.7% vs. 96.9%, $P=0.003$). Finally, a lower median Syntax score was a predictor of procedural success (17 IQR 12-24 vs. 20.5 IQR 15-29.5, $p=0.036$).

CONCLUSION: Beyond the J-CTO score, several angiographic parameters related to the CTO lesion complexity and the coronary atherosclerotic burden predict the risk of CTO PCI failure. This hypothesis-generating analysis needs to be validated in future large-scale studies as it could improve patient selection and refine decision making for such a complex coronary intervention.

**Canadian Cardiovascular Society (CCS)
Abstracts — CSI**

**P053
ANGIOGRAPHIC PREDICTORS OF CTO PCI
SUCCESS: HOW TO GUIDE DECISION MAKING
BEYOND THE J-CTO SCORE**

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BACKGROUND: Chronic total occlusion (CTO) recanalization remains one of the most challenging procedures in interventional cardiology, and the inability to cross the lesion with a guidewire is the most common cause of CTO percutaneous coronary intervention (PCI) failure. While the current standard lesion evaluation is mostly

**P054
LINKS BETWEEN CORONARY MICROVASCULAR
DYSFUNCTION AND EVIDENCE OF HEART
FAILURE WITH PRESERVED EJECTIVE FRACTION**

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BACKGROUND: It has been hypothesized that coronary microvascular dysfunction (CMD) may be associated with the development of myocardial abnormalities associated with heart failure with preserved ejective fraction (HFpEF). Making a diagnosis of HFpEF is aided by exercise right heart catheterization (RHC) based on an abnormal pulmonary artery wedge pressure (PAWP) response during exercise. An