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B-PO05-071

WHAT IS THE RISK OF NOSOCOMIAL COVID-19 INFECTION FOLLOWING AN ELECTIVE ELECTROPHYSIOLOGY PROCEDURE WITH AN OVERNIGHT HOSPITAL STAY?

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Background: As the COVID-19 pandemic continues, patients are (understandably) apprehensive about undergoing elective cardiovascular procedures because of the potential risk of contracting the infection in an inpatient hospital setting.
Objective: To describe the incidence of COVID-19 infection in patients undergoing elective EP procedures.
Methods: We studied 455 consecutive patients undergoing elective EP procedures between 5/2020 and 12/2020, and spending $\geq$ 1 night in the hospital. Hospital policy mandated a negative PCR test within 5 days of admission, universal mask usage, and diligent hand washing. We evaluated for a clinical diagnosis of COVID-19 infection or a positive PCR test within 4 weeks of discharge.
Results: The cohort (age 65 $\pm$ 1.3 years, 38%F, ~75% catheter ablation; see ***Table***) had a length of stay (LOS) of 29.7$\pm$3.4 hrs. PCR testing for COVID-19 was performed in 33 asymptomatic pts (typically in anticipation of another procedure) and 8 of 455 pts (1.8%) with viral illness symptoms. The swab was positive in 0 of 33 pts and 2 of 8 pts, respectively. One 55 yo pt who underwent AF ablation with LOS=27 hrs, had an EGD for candida esophagitis at 19 days, was swab-positive at 22 days, and recovered without hospitalization. The other 72 yo pt underwent PVC ablation with LOS=30 hrs, developed fevers/dyspnea and was swab-positive at 18 days, was admitted at 25 days and eventually died of fulminant COVID-19 pneumonia.
Conclusion: In patients undergoing elective EP procedures followed by an overnight hospital stay, nosocomial COVID-19 infection was rare (0.4%). These findings may provide reassurance to patients, particularly given the interval vaccination of hospital staff.

Patient Characteristics	(N = 455)
Age, years	65 ± 1.3
Gender, No. (%)	
Male	282 (62%)
Female	173 (38%)
Received COVID-19 Swab, No. (%)	41
Negative Swab	39 (95%)
Positive Swab	2 (5%)
Anesthesia Type During Procedure, No. (%)	
General Anesthesia	248 (55%)
MAC	184 (40%)
Local Anesthesia Only	23 (5%)
Type of Procedure, No. (%)	
AF Ablation	181 (40%)
AFL Ablation	64 (14%)
EP Study ± SVT Ablation	62 (14%)
VT or PVC Ablation	39 (9%)
ICD / CRT / Pacer Implantation	87 (19%)
LAA Closure	16 (4%)
Other	6 (1%)
Length of Stay, hours	29.7 ± 3.4
Diagnosed with COVID-19 Infection, No. (%)	2 (0.4%)
COVID-19 Related Death	1 (0.2%)

B-PO05-072

TEMPORARY RESTORATION OF SINUS RHYTHM PRE-ABLATION CAN IMPROVE LONG-TERM ARRHYTHMIA OUTCOMES IN PATIENTS WITH NON-PAROXYSMAL ATRIAL FIBRILLATION UNDERGOING PULMONARY VEIN ISOLATION

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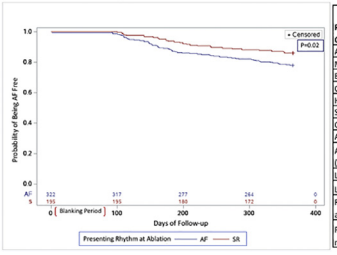
Background: Adverse structural and electrical remodeling underlie persistent (Pe) and long standing persistent (LSP) atrial fibrillation (AF). Extensive catheter ablation (CA) strategies have been utilized albeit with limited success to address this issue. Temporary restoration of sinus rhythm (SR) in these patients may improve the underlying substrate, thus improving long-term arrhythmia outcomes after CA.
Objective: To evaluate if temporary restoration of SR [by cardioversion and/or antiarrhythmic drugs (AADs)] pre-ablation can improve long-term arrhythmia outcomes after pulmonary vein isolation (PVI) in patients with Pe-AF and LSP-AF.
Methods: Patients with Pe-AF and LSP-AF undergoing first-time PVI at our institution from 2014-2018 were included. We compared patients who had temporary restoration of SR pre-ablation to those who presented for CA in AF. Primary outcome of interest was freedom from AF off AADs at 1 year after single ablation. Secondary outcomes included freedom from AF on or off AADs at 1 year and time to recurrent AF after single ablation.
Results: 571 patients were included (322 presented in AF; see Table). Primary outcome was higher in those who presented for CA in SR as compared to AF (59% vs. 44%, p <0.01). Freedom from AF on or off AAD was also higher in those presenting in SR (86% vs. 78%; p=0.02) and time to recurrent AF was lower in this group (p=<0.01; see Figure). Presence of SR at CA was independently associated with freedom from AF off AADs at 1 year (OR 1.867; 95% CI 1.13-2.46).
Conclusion: Temporary restoration of SR pre-ablation can improve long term arrhythmia outcomes of PVI in patients with Pe-AF and LSP-AF.



Patient Characteristics and Outcomes	Presenting in AF (n=322)	Presenting in Sinus Rhythm (n=195)	p-value
Age (years)	64.8 ± 9.7	62.2 ± 11.1	0.005
Males (%)	254 (78.9%)	152 (77.9%)	0.8
Body Mass Index, mean (SD)	31.1 ± 6.3	30.5 ± 6.1	0.33
CAD (%)	52 (16.2%)	22 (16.9%)	0.82
HTN (%)	198 (61.5%)	114 (58.5%)	0.5
Sleep Apnea (%)	80 (25.8%)	43 (22.1%)	0.47
CHA2DS2-VASc score	1.3 ± 1.0	1.2 ± 1.1	0.53
AADs pre-ablation (%)	132 (41.0%)	133 (68.2%)	<0.0001
AADs post-ablation on discharge (%)	227 (70.5%)	126 (64.6%)	0.16
Left Ventricular Ejection Fraction	53.0 ± 12.3	51.4 ± 13.4	0.15
LA Volume (mL/m^2)	42.4 ± 14.6	38.4 ± 15.7	0.17
Freedom from AF on or off AAD at 12 months (%)	251 (78.0%)	168 (86.2%)	0.02
Freedom from AF off AAD at 12 months (%)	143 (44.4%)	114 (58.5%)	0.002