COVID-19 Risk with Electrophysiology Procedures During the Pandemic

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Abstract

Background: Coronavirus disease (COVID-19) has overwhelmed healthcare systems worldwide often at the cost of patients with serious non-COVID-19 conditions. Outcomes and risks of contracting COVID-19 in patients hospitalized during the pandemic are unknown. Objective: To report our experience in safely performing electrophysiology procedures during the COVID-19 pandemic. Methods: We examined non-COVID-19 patients who underwent electrophysiology procedures during the peak of the pandemic between March 16, 2020 and May 11, 2020 at seven Northwell Health hospitals. We developed a priority algorithm to stratify inpatients and outpatients requiring electrophysiology procedures and instituted a protocol to minimize hospital length of stay (LOS). All patients underwent post discharge 30-day tele-health follow-up and chart review up to 150 days. Results: A total of 217 patients underwent electrophysiology procedures, of which 86 (39%) patients were outpatients. A total of 108 (49.8%) patients had a LOS less than 24 hours, including 74 device implantations and generator changes, 24 cardioversions, five ablations, and one electrophysiology study. There were eleven (5.1%) procedure or arrhythmia related re-admissions and two (0.9%) minor procedural complications. Overall average hospital LOS was 83.4±165.1 hours and a median of 24.0 hours. For outpatient procedures, average hospital LOS was 9.4±13.4 hours and a median of 4.3 hours. Overall follow-up time was 83.9 ±42 days and a median of 84 days. During follow-up, two (0.9%) patients tested positive for COVID-19 and recovered uneventfully. No deaths occurred. Conclusion: During the peak of the COVID-19 pandemic, patients safely underwent essential electrophysiological procedures without increased incidence of acquiring COVID-19.

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