Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

B-PO02-172

INCIDENCE OF VENTRICULAR ARRHYTHMIAS IN COVID-19

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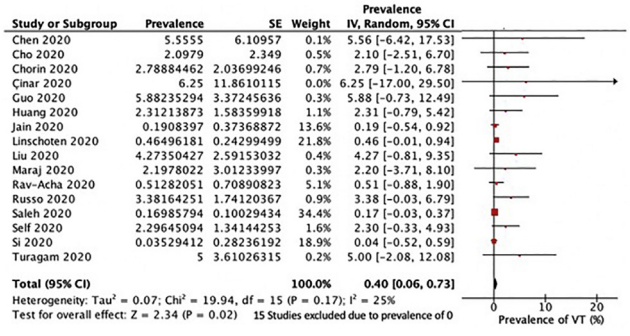
Background: Covid-19 has been a global pandemic with evidence of significant cardiovascular involvement including myocarditis, coronary thrombosis, heart failure, and atrial and ventricular arrhythmias. Given the need for rapid data release, most of these reports are from small case series and little is still known about the incidence of potentially lethal ventricular arrhythmias in the various states of Covid-19 cardiac involvement.
Objective: The objective of this study is to determine the incidence of VT/VF in Covid-19.
Methods: A Systematic Review was conducted in PubMed, Embase, and CINAHL from Jan. 2019-Jan. 2021 using the search terms Ventricular tachycardia (VT) or Ventricular Fibrillation (VF) and Covid-19, SARS-CoV-2, or Severe acute respiratory syndrome coronavirus 2. The primary endpoint of presence of ventricular arrhythmia was extracted in the individual patient populations: outpatient, hospitalized, ICU, and presence of myocardial involvement.
Results: 31 studies (n = 15,305 patients) were included. The overall incidence of VT/VF in hospitalized patients not in an ICU was 0.73% (95% CI 0.59-0.87%). Covid-19 patients with myocarditis and troponin elevation had increased incidence of VT/VF of 9.5% (95% CI 0-22.1%) and 6.5% (95% CI 3.44-9.62%) respectively. ICU patients had 1.2% (95% CI 0.03- 2.29%) incidence of VT/VF. No outpatient Covid-19 patients had documented ventricular arrhythmias.
Conclusion: VT/VF is an important complication of Covid-19. VT/VF had an increased incidence in those with myocarditis and myocardial injury.

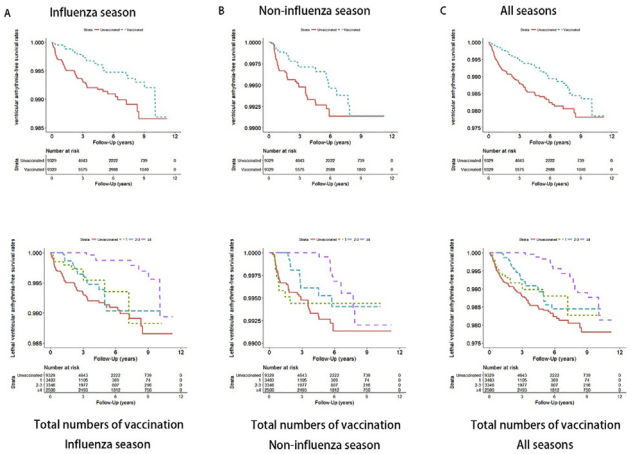


B-PO02-173

INFLUENZA VACCINATION DECREASES THE RISK OF POTENTIAL LETHAL VENTRICULAR ARRHYTHMIAS IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE: A POPULATION-BASED LONGITUDINAL STUDY

Chun Chao Chen MD, Cheng-Hsin Lin, Wen-Rui Hao, Chun-Chih Chiu, Yu-Ann Fang and Ju-Chi Liu

Background: Influenza vaccination could decrease the risk of major cardiac events in patients with chronic obstructive pulmonary disease (COPD).
Objective: The vaccine's effects on decreasing the risk of ventricular arrhythmia (VA) development in such patients remain unclear.
Methods: We retrospectively analysed the data of 18,658 patients with COPD (≥55 years old) from the National Health Insurance Research Database during January 1, 2001 to December 31, 2012. After a 1:1 propensity score matching by the year of diagnosis, we divided the patients into vaccinated and unvaccinated groups.
Results: The risk of VA occurrence was significantly lower in the vaccinated group during influenza season, noninfluenza season, and all seasons (adjusted hazard ratio [aHR]: 0.49, 95% confidence interval [CI]: 0.32-0.75; aHR: 0.57, 95% CI: 0.36-0.90; and aHR: 0.53, 95% CI: 0.39-0.72, respectively). Those vaccinated more than four times during the follow-up period showed a low risk of developing VA during influenza season (aHR: 0.61, CI: 0.31-1.20; aHR: 0.65, CI: 0.38-1.12; and aHR: 0.27, CI: 0.13-0.57 for those vaccinated 1 time, 2-3 times and more than 4 times, respectively). The dose-dependent protective effects remained significant during influenza and noninfluenza seasons. Among patients with ischemic heart disease and hypertension, male patients, and patients with CHA_2DS_2-VASc scores of ≥2, the influenza vaccination decreases the risk of future VA occurrence.
Conclusion: Influenza vaccination decreases the risk of VA among patients with COPD. Its protective effects are dose-dependent and persist during both influenza and noninfluenza seasons.



B-PO02-174

ELECTROPHYSIOLOGICAL PREDICTOR AND ANATOMICAL CHARACTERISTICS IN PATIENTS WITH VENTRICULAR TACHYARRHYTHMIA ARISING FROM THE LEFT VENTRICULAR SUMMIT

Masashi Kamioka MD, Takafumi Okuyama, Hiroaki Watanabe, Ayako Yokota, Tomonori Watanabe, Takahiro Komori, Tomoyuki Kabutoya, Yasushi Imai and Kazuomi Kario

Background: The ablation of intramural origins of left ventricular outflow tract - ventricular tachyarrhythmias (LVOT-VAs) remain challenging.
Objective: To elucidate the electrophysiological predictors of the intramural origins of LVOT-VAs, and to clarify the involvement of anatomical factors.
Methods: Twenty-nine successfully ablated LVOT-VAs patients with origins in the aortomitral continuity (AMC) (n = 8), aortic