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CLINICAL IMPACT OF UNHEALTHY LIFESTYLE IN PATIENTS WITH ATRIAL FIBRILLATION HAVING LOW-RISK FOR STROKE

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Background: Unhealthy lifestyle may contribute to poor clinical outcomes in patients with atrial fibrillation (AF).

Objective: The study aimed to investigate the impact of an unhealthy lifestyle on 'low-risk' AF patients (CHA2DS2-VASc ≤1 for men, 2 for women).

Methods: A total of 52,451 low-risk AF patients were investigated from the National Health Insurance Service database between 2009 and 2016. According to unhealthy lifestyle scores, the study population was categorized into 4 groups (Figure 1). Based on a survey on the health habits of each patient, we calculated an unhealthy lifestyle score (ULS) by adding 1 point each if a participant had a sedentary lifestyle, alcohol consumption, or smoking. Multivariable Cox’s hazard regression analysis was used to evaluate the risks of study outcomes. The primary outcome was the composite of major cardiovascular adverse events (MACE, including myocardial infarction, ischemic stroke, and heart failure) and all-cause death.

Results: There was a total of 12,792 (24.4%), 24,785 (47.3%), 11,602 (22.1%), and 3,272 (6.2%) low-risk AF patients with 0 to 3 points of ULS, respectively. The population’s mean age was 51.6 ± 10.4 years, and male proportion was 61.6%. Compared to the healthiest group (ULS 0), the unhealthiest group (ULS 3) was younger (48.2 vs. 53.0 years, p < 0.0001), had a higher proportion of males (93.1% vs. 43.6%, p < 0.0001), was more obese (38.6% vs. 34.1%, p < 0.0001). The median follow-up was 4.1 (2.1-6.1) years. Compared to the healthiest group, the other groups were associated with significantly higher risks of the primary outcome with a gradually increasing trend according to ULS (adjusted HR [95% CI] = 1.17 [1.05-1.31], 1.37 [1.21-1.56], 1.82 [1.53-2.17], respectively) (Figure 2).

Conclusion: Unhealthy lifestyle may lead to poor clinical outcomes in low-risk AF patients. A healthy lifestyle would be important to prevent adverse cardiovascular events in low-risk AF patients.

DIAGNOSTIC UTILITY OF 18 FDG PET AND CMR IN DIAGNOSIS OF EARLY CARDIAC SARCOIDOSIS

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Background: Cardiac MRI and 18-fluorodeoxyglucose positron emission tomography (18 FDG-PET-CT) are commonly used to diagnose cardiac sarcoidosis (CS). Their clinical utility in early and late stage of the disease is unclear.

Objective: To compare the diagnostic utility of 18FDG-PET-CT and CMR in patients with early and late stage of CS.

Methods: Data of 96 consecutive patients with CS from the Granulomatous Myocarditis Registry was analysed. All patients underwent a 18 FDG-PET-CT and CMR within 1 week of their initial clinical presentation. Patients were divided into early (<6 months) (ES) and late stages (LS) based on the duration of time since their first cardiac presentation. The uptake index (UI) was defined as the product of maximum standardized uptake value and the number of LV segments with abnormal uptake on 18 FDG-PET-CT. Clinical response (CR) was assessed after 4-6 months of immunosuppressive therapy. CR was defined as an improvement in functional class ≥ 1 and freedom from ventricular arrhythmias and HF hospitalizations.

Results: Among the 91 patients in the final analysis (age, 44.1 ± 10.3 yrs; left ventricular ejection fraction, 43.1 ± 9.5%), 54.9% and 45.6% had an ES and LS CS, respectively. At initial presentation, patients with LS had higher frequency of ventricular arrhythmias (82.9% vs. 60.0%, p = 0.012) and a reduced LVEF (35.6% vs. 54.5%, p = 0.009) compared to those with ES. In patients with ES CS, abnormal myocardial uptake on PET-CT was noted in all (100%) and 68% had late gadolinium enhancement on CMR (p < 0.001). Diagnostic yield of PET and CMR was similar in LS CS (92.7% vs. 95.1%, p = 0.498). The UI was higher in patients with ES compared to those with a LS CS (78.4% vs. 43.6%, p = 0.002). In addition, CR was higher in patients with an ES compared to those with a LS CS (82.0% vs. 68.3%, p = 0.034).

Conclusion: In patients with early disease, 18 FDG-PET CT appears to be superior to CMR in diagnosis of cardiac sarcoidosis.

Objective: We aimed to perform a meta-analysis of all available studies to evaluate the effect of yoga therapy on patients with recurrent VVS.

Methods: A systematic search of electronic databases was performed to identify studies evaluating yoga therapy along with current guideline-based therapy in patients with recurrent VVS. The primary outcome was the number of VVS attacks and quality of life (QoL) assessment by Syncope Functional Status Questionnaire (SFSQ) scores at 12 months. The Mantel-Haenszel random-effects model was used to calculate the mean difference (MD) and 95% confidence interval (CI).

Results: We included four studies, two randomized trials, and two observational studies. A total of 309 patients were included. The mean age of participants was 34 ± 13.5 years, with 141 participants (45.6%) being males. The baseline syncope burden was 3.5 ± 2.38 episodes over 15.6 ± 12.8 months. Compared to the control group, yoga therapy significantly reduced the mean number of syncopal and presyncopal attacks (MD -1.86; 95% CI -3.30, -0.43; p = 0.01; Figure). However, yoga therapy didn't improve QoL assessed by SFSQ scores (MD -30.69; 95% CI -62.22, 0.83; p = 0.06; Figure).

Conclusion: Among patients with recurrent VVS, Yoga therapy is beneficial as an adjunct therapy in reducing the recurrence of syncopal and presyncopal attacks. However, yoga therapy didn't improve the QoL.

The number of VVS attacks and QoL assessment by SFSQ scores at 12 months. The Mantel-Haenszel random-effects model was used to calculate the mean difference (MD) and 95% confidence interval (CI).

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TRENDS OF ATRIAL FIBRILLATION IN PATIENTS HOSPITALIZED FOR INFLAMMATORY BOWEL DISEASE - AN ANALYSIS OF THE NATIONAL DATABASE

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Background: Inflammatory Bowel Disease (IBD) associated chronic inflammation and autonomic dysregulation have been reported in the literature to predispose to arrhythmias in particular atrial fibrillation.

Objective: The aim of the present study is to determine the trends of AF amongst patients hospitalized for ulcerative colitis (UC) and Crohn's disease (CD) from 2003-2017 and establish an association using the National Inpatient Sample database (NIS).

Methods: We analyzed NIS data of adults diagnosed with AF and UC or CD, either as primary or secondary diagnosis using the validated ICD-9 and ICD-10 codes. Sex, race, and other demographics were collected. Trend analysis of AF was performed with Cochran-Armitage test.

Results: Overall Trends: From 2003 to 2017, a total of 2235413 and 1324746 patients were hospitalized due to CD and UC respectively out of which 149114 (6.67%) with CD and 131795 (9.95%) with UC had AF. The overall trend shows an increase in the prevalence of CD, UC from 2003 to 2017 (CD: 4.1% to 8.3%; UC: 4.1% to 8.81%; pTrend <0.0001). Parallely there is an increase in the prevalence of AF (CD: 4.21% to 7.97%; UC 7.03 to 10.56, pTrend <0.0001). There is an increase in the prevalence of AF in patients with CD and UC.