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Impact of Atrial fibrillation on the outcome of patients with Brugada syndrome: A meta-analysis

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We use this protocol and it's working

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Abstract

Background: A systematic review and meta-analysis will be conducted to assess the effects of atrial fibrillation (AF) on patients with brugada syndrome (BrS).

Methods: Studies enrolling patients with BrS and AF will be included. Primary outcomes will include major arrhythmic events, syncope, and all-cause mortality, while secondary outcomes will include the rates of SCN mutations.

Results: We will search OVID MEDLINE, Cochrane CENTRAL, and EMBASE up to January 2024. Data will be extracted and analysed using standard meta-analytic techniques.

Conclusion: Our findings will provide insights into the effects of AF in patients with BrS, aiding clinical decision-making in this population.

1 Identify the question

Population - patients with Brugada syndrome with and without AF (No constraints were set in terms of type of atrial fibrillation or type of brugada syndrome).

Comparison - assessing whether concurrent AF has an effect on patients with brugada syndrome.

Outcomes - Rates of major arrhythmic events, syncope, mortality rate, and SCN mutations.

2 Search strategy

Searches were run via OVID MEDLINE, Embase, and Cochrane central from inception to January 2024.

Search terms will include: Brugada syndrome, atrial fibrillation, ventricular fibrillation, ventricular tachycardia, sudden cardiac death, major arrhythmic event

Two reviewers will independently screen for titles for relevance and then assessed the full texts for their eligibility.

A third expert will intervene whenever discrepancies are observed.

3 Data Extraction

The data will be extracted onto a pre-made excel spreadsheet (Office 365, Microsoft Corporation) with subheadings for study type, single or multi-centre, study drugs, and population characteristics: age, sex, brugada type, AF type prevalence, major arrhythmic event definition, and follow up period.

4 Data analysis

The data will be analysed using odds ratios as a measure of effect. A random-effects model will be used for accounting for the observed heterogeneity. Statistical analysed and creation of forest plots will be completed using meta packages in R programme and variance will be calculated using paule-mandel model.

5 Risk of bias Assessment

The studies included will be assessed by 2 independent authors and will use the Newcastle Ottawa scale.