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Atrial Fibrillation Patients with Immune Thrombocytopenia: A Review of Management Options and Bleeding Risks

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Aim :

The objective of this research is to review the bleeding risks in patients with atrial fibrillation (Afib) and immune thrombocytopenia (ITP) and explore various management strategies to formulate an optimal therapeutic approach that improves the prognosis of these patients.

Methods:

In this study, we devised our search approach by utilizing PubMed's Medical Subject Headings (MeSH) terms and incorporating pertinent keywords extracted from article titles and abstracts. To ensure a comprehensive scope, we integrated terms associated with immune thrombocytopenia purpura, such as "Immune Thrombocytopenia," and similar expressions. Additionally, terms related to atrial fibrillation, including "atrial fibrillation," were included to identify articles discussing atrial fibrillation in the context of immune thrombocytopenia. To adapt the initial search strategy for Embase, Web of Science, and Scopus databases, we employed a polyglot translator. All identified studies resulting from the search strategy were imported into EndNote, where duplicate articles were meticulously removed. The remaining studies were then transferred to Rayyan for further duplicate elimination and to initiate the screening process. The study incorporates full-text articles, submitted abstracts, and conference abstracts. Excluded from this analysis were studies falling into the following categories: (1) animal studies, (2) reviews or non-original articles, and (3) non-English articles.

Results:

A total of 1891 articles were retrieved from four databases, and after careful selection, 14 relevant full-text articles were analyzed. Among these, 12 studies investigated the efficacy of anticoagulants in managing cases of concurrent Afib and ITP as well as their bleeding risks. Comparing bleeding risk between groups was usually done through measuring by CHA₂DS₂ VASc or HAS BLEED scoring systems and survival was also compared by using Kaplan-Meier curves A few of them also compared the efficacy and safety of warfarin against Non-Vitamin K Antagonists which has shown that Non-Vitamin K Antagonists have a lower event rate of major bleeding, lower hazard ration of systemic embolism and higher survival rate compared to warfarin The remaining two papers explored the efficacy and safety of surgical interventions, specifically left atrial appendage closure. Many studies reported that anticoagulant therapies were associated with reduced bleeding risk and have shown promising outcomes in managing patients with Afib and ITP. Additionally, percutaneous left atrial appendage closure has been reported to be a potentially safe management option for atrial fibrillation in patients with primary hemostatic disorders, including thrombocytopenia.

Conclusion:

In essence, this review focused on investigating the bleeding risk associated with atrial fibrillation (Afib) in patients with immune thrombocytopenia (ITP) and examining available management strategies. While the precise pathophysiological mechanisms linking atrial fibrillation and ITP remain incompletely understood, the review emphasized the intricate interplay between thromboembolic risk and bleeding complications in this specific patient group. The findings suggest that certain anticoagulation regimens and also left atrial appendage closure have shown promising safety and effectiveness in Afib patients with thrombocytopenia. Nevertheless, further research with larger sample sizes and diverse populations is needed to enhance

our understanding of the Afib-ITP relationship. Such studies will yield more definitive conclusions and valuable insights into optimal anticoagulation approaches and alternative therapies for patients with both Afib and ITP.

Disclosures No relevant conflicts of interest to declare.

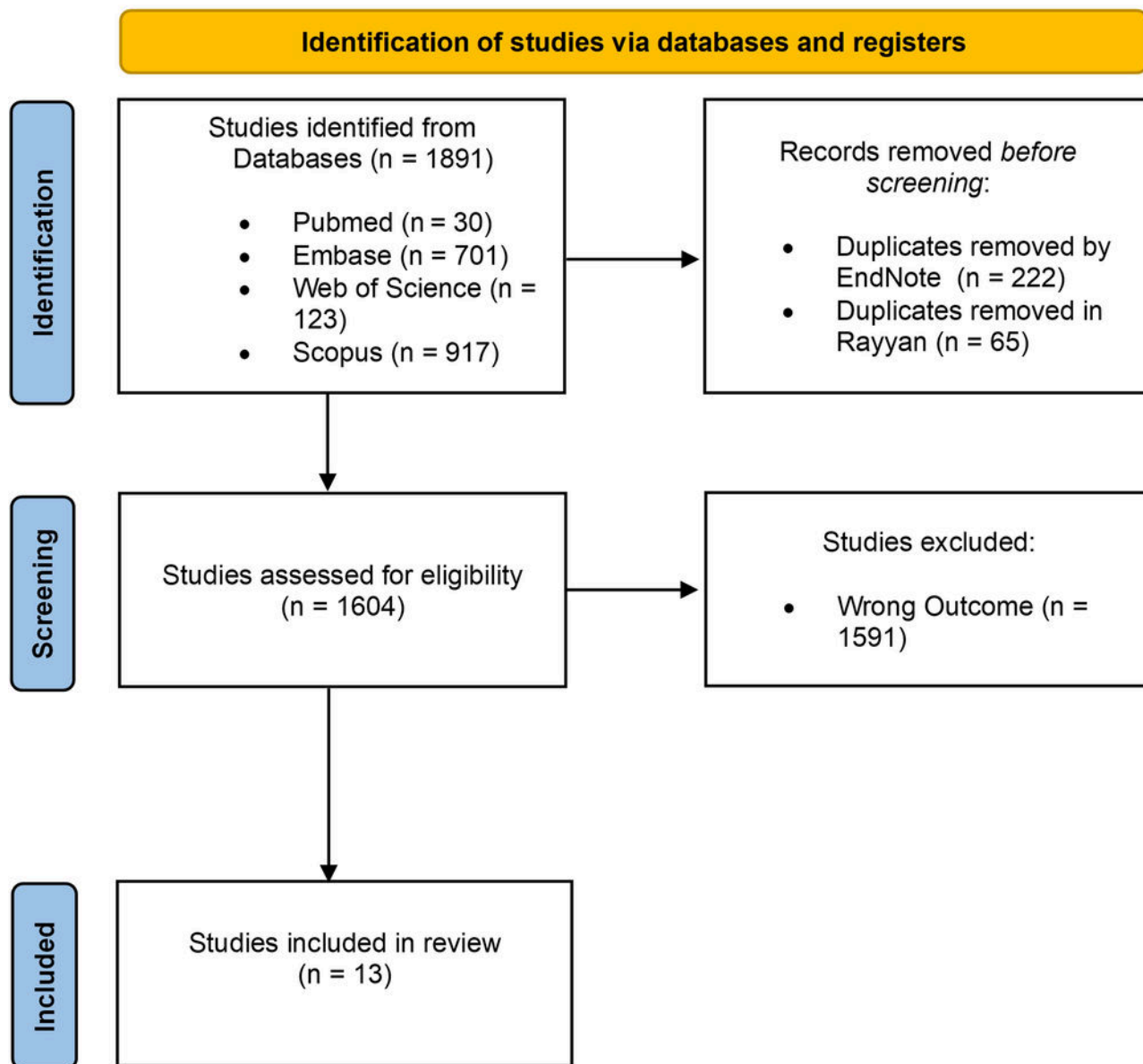


Figure 1

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