**Safety of Non-steroidal Anti-inflammatory Drug for Myopericarditis Patients: A Systematic Review**

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**Background**

Pericarditis is the most common pericardial disease, and accounts for 1.1% of in-hospital mortalities in developed countries. Etiologic agents from pericarditis often also result in myocardial involvement. The use of non-steroidal anti-inflammatory drugs (NSAIDs) in treating pericarditis is common, but their impact on outcomes remains controversial. The aim of this study is to investigate the safety of NSAID use among myopericarditis patients compared to standard heart failure therapy.

**Methods**

We performed a systematic search according to PRISMA guidelines, using MEDLINE, EBSCO, Cochrane Central Database, Scopus, and Google Scholar for trial, cohort, and case control studies. We evaluated studies that evaluated patients until their deaths, and tracked mortality and new onset of heart failure. Relevant articles were appraised using guidelines from the Oxford Center for Evidence-Based Medicine and Cochrane Risk of Bias Tool.

**Results**

A total of 3 articles (247 patients) were included. Two cohorts and one case control study were selected. To date, there have been no randomized controlled studies on this topic. In the study by Buiatti et al (2013), 98% of pericarditis patients received NSAIDs; there were no deaths or new onsets of heart failure reported in this cohort over a follow-up period of 1 year. Imazio et al (2013) also revealed that among the 75% of perimyocardial patients receiving NSAIDs, there were no reported outcomes of death or new onset of heart failure during 36 months of follow-up. Berg et al (2019) showed that 62% of 60 patients received NSAIDs, and there was one patient experienced non-sustained ventricular tachycardia (VT) during 12 months of follow-up.

**Conclusion**

The results of our systematic review suggest that NSAIDs are safe for myopericarditis patients. Further evidences and trials are needed to verify the results.

**Keyword**:

nonsteroidal anti-inflammatory drugs, pericarditis, inflammation