



# Abstracts from the World Congress of Cardiology/ Oriental Congress of Cardiology 2024

## ABSTRACT

THE EDITORIAL TEAM (ON BEHALF OF THE WORLD HEART FEDERATION)

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These are the top 30 abstracts from the combined 18th Oriental Congress of Cardiology together with the World Congress of Cardiology, held in June 2024. From 1950 to today, the World Heart Federation's World Congress of Cardiology (WCC) has been a key event on the cardiovascular calendar, offering a global perspective on cardiovascular health and bringing together thousands of cardiology professionals from all over the world with one common goal: to reduce the global burden of cardiovascular disease and help people live longer, healthier lives.

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## COMPARISON BETWEEN ANNULOPLASTY AND MITRAL VALVE REPLACEMENT IN RHEUMATIC HEART DISEASE: A SYSTEMATIC REVIEW

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**Background & Objective:** Rheumatic disease is a group of medical conditions characterized by inflammation, pain, and limitation in movement. Cardiac involvement in rheumatic disease is one of the most serious manifestations of this condition, lead with heart valves, especially the mitral valve. Thus, cardiac involvement in rheumatic disease is a significant concern, because it leads to chronic cardiac complications, which require interventions, such as annuloplasty or even mechanical valve replacement. This review aimed to analyze the effects of mitral annuloplasty compared with replacement on the treatment of valvular complications in patients with rheumatic heart disease (1-6).

**Methodology:** This study employs a systematic review of the literature focusing on the descriptors “rheumatic heart disease”, “annuloplasty”, “mitral valve”, and “surgery”. The research was conducted by Health Sciences Descriptors (DeCS) and the strategy (((rheumatic heart disease)) AND (annuloplasty)) AND (mitral valve)) AND (surgery) was used, on the PUBMED, LILACS, Scielo, ScienceDirect and BMS databases. The PICO strategy was used to guide the search strategy that supported the data collection “In rheumatic heart disease, what is the effect of mitral annuloplasty on the treatment of valve complications compared with mitral replacement?”. The inclusion criteria were: articles published between 2014 and 2024; free; written in English, Spanish or Portuguese and that directly related the comprehensive understanding of interventions with the purpose of addressing mitral valve complications in rheumatic diseases.

**Results:** 57 articles were identified and, after the reading of the title and abstract, 17 articles were selected. Of these, 6 works met the eligibility criteria. It was identified that rheumatic fever (RF) had a higher prevalence in emerging countries, more specifically in the Pacific region, where RF is more prevalent in young children, aged 5 to 15 years, with Rheumatic Heart Disease (RHD) being the most common complication of RF. The articles that discussed the therapy of RHD pointed out the replacement of the mitral valve (MV) with a synthetic valve or the repair of the MV as possible treatment choices. The treatment approach for those affected must follow a systematic approach related to the patient’s profile and their cardiac condition, in particular the structural condition of the valve, in order to assess their eligibility for MV replacement or repair, such as in young and physically active patients, but with limited access to healthcare, for which the choice of mitral annuloplasty is given as a preference, as a temporary solution. In articles comparing the two therapies, it was observed that patients who underwent MV repair presented risks for reoperation, in addition to also presenting higher rates of mitral regurgitation compared to patients who underwent MV replacement with a mechanical valve. Regarding mortality from extracardiac causes, similar risks were found for both groups.

**Conclusion:** Mitral valve complications in rheumatic heart disease can be treated with repair or replacement of the valve. The choice between techniques depends on the patient’s profile. Annuloplasty was pointed out as preferably recommended, but at the same time presented greater risks for reoperation and higher rates of mitral regurgitation compared with MV replacement.

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