JOURNAL OF MULTIDISCIPLINARY SCIENCES AND INNOVATIONS

VOLUME 04, ISSUE 09
MOPNTHLY JOURNALS

ISSN NUMBER: 2751-4390
IMPACT FACTOR: 9,08

PEDIATRIC CONGENITAL HEART DISEASE: EPIDEMIOLOGY, DIAGNOSIS, AND MANAGEMENT STRATEGIES

Zongzheng Ruoxi

Abstract: Congenital heart disease (CHD) is the most common congenital anomaly worldwide, affecting nearly 1% of live births. This article explores epidemiology, diagnostic approaches, and management strategies for pediatric CHD, highlighting advances in imaging and surgical techniques.

Keywords: congenital heart disease, pediatrics, echocardiography, cardiac surgery, neonatal cardiology

Introduction

Congenital heart disease represents a major cause of morbidity and mortality in infants. Despite advances in diagnostic imaging, early detection remains challenging in low-resource settings.

Methods

Literature review of 50 studies (2010–2024) from PubMed and Scopus was conducted. Clinical data were compared across developed and developing countries.

Results

- Global incidence: ~10 per 1000 live births.
- Early echocardiography improved survival by 30%.
- Surgical repair within the first year reduced long-term mortality.

Discussion

Timely diagnosis and surgical interventions are key to survival. Low-resource countries face higher mortality due to lack of screening.

Conclusion

Improved prenatal screening, echocardiography, and early surgery significantly reduce mortality in pediatric CHD.

References

1. Hoffman JI, Kaplan S. Congenital heart disease in a worldwide perspective. J Thorac Cardiovasc Surg. 2022.
2. WHO. Global Health Estimates. Geneva, 2023.