

A Review On Rheumatic Disease Awareness

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ABSTRACT

ARF/RHD are conditions associated with low socioeconomic status and insufficient access to healthcare services. Despite their capacity to inflict considerable mortality and morbidity in low-income regions, these preventable diseases frequently receive insufficient attention in developed countries. To tackle the absence of a definitive treatment, it is essential to prioritize prevention and control strategies. It is essential to enhance understanding of the disease and its effects on millions of individuals globally. Thus in this review we have address the awareness and knowledge globally by understanding its epidemiology, importance, barriers and different strategies that can be used for RHD.

Keywords: RHD, ARF, Epidemiology, Importance, Barriers, Strategies Awareness, Knowledge.

1. INTRODUCTION

According to past studies, acute rheumatic fever (ARF) occurs due to immune response abnormality which leads to pharyngitis caused by streptococcal bacteria. [1–4] According to a study, persistent dysfunction of cardiac valves due to ARF is known as rheumatic heart disease (RHD), which is a major factor in mortality rates in resource-limited areas worldwide. [4] Researchers have also shown in their studies that, it represents as a significant health challenge in developing countries. [5,6] In addition to this, studies found that, severe valve disease, which may be subject to intervention, is significantly linked to mortality. [7,8] The unavailability of valve replacement surgeries for the majority of patients with RHD significantly elevates the risk of mortality and major adverse outcomes. [7,8] In December 2017, a collective of representatives from industry, non-governmental organizations, and prominent global and regional cardiothoracic societies convened to address the challenges faced by the millions of patients afflicted with RHD, marking the 50th anniversary of the inaugural heart transplant. [7]

According to studies, it is the primary complication which results in changes in hemodynamics (HD), ventricular remodeling (VR) & heart failure (HF). [10,11] According to study, balloon valvotomies may be present as a viable option to understand it. [12] Nevertheless, studies have shown that, the utilization rates of percutaneous & surgical interventions in resource-limited environments may be constrained by the scarcity of healthcare facilities & trained personnel. [13,14] Furthermore, studies have shown that, a significant number of patients with RHD are identified at an advanced stage, where valve intervention has a restricted effect on clinical outcomes. [13,15]

2. EPIDEMIOLOGY

Over the past years according to studies, growing interest of RHD globally have seen, partially due to the accessibility of echocardiography (ECG)-based screening in regions where condition continues to be more endemic. [16,17] ECG has been instrumental in assessing its prevalence and informing policy decisions for disease management and control. This has shown to be 7 to 8 times greater than clinical disease. [18-21] Nonetheless, most studies employed ECG in school-aged children,

where RHD is lower than observed in the general population. [20] Recent data have showed that the community settings which identify RHD seen in all age groups. [22] RHD imposes a considerable global burden, especially on those residing in resource-constrained countries. [5] A thorough literature analysis done by researchers estimated that around 33 million individuals suffer from RHD.[20] In 2015, a study showed that, the incidence of disability-adjusted(DA) years attributable to RHD was 10.5 million, representing 0.43% of the total global.[23] A study found that, the predominant portion of DA life-years attributed to RHD resulted from lost years of life, indicating that early mortality. Thus, the highest mortality rates were seen in high-prevalence regions between 1990 and 2015. [23] However, if the condition remains untreated, the progression to HF & death is nearly unavoidable.[9] A study reported the elevated rates of disability & premature mortality in African and Asian nations, primarily due to the advanced stage of the disease.[8] There has been an increasing necessity to enhance awareness of RHD and its devastating consequences following a phase of relative oversight. [6] There is substantial evidence indicating that comprehensive programs can lead to the successful eradication of RHD and mitigate its severe impacts on affected individuals. [5] The primary objective of these programs should be the effective implementation of established control strategies that positively impact individuals and communities.

3. IMPORTANCE OF AWARENESS & EDUCATION

For increasing awareness, several successful projects have been developed to educate about immunity, HIV etc.[24] Because of this, there has been a decrease in the amount of money allocated to RHD projects, a decrease in the amount of research and publications, and a decrease in the amount of RHD that is mentioned in textbooks that are published in more prosperous areas of the world.[25] They cause most of the world's heart disease and have death rates similar to rotavirus and half that of malaria.[26] Despite the fact that ARF and RHD are almost exclusively found in countries that are economically disadvantaged, they are nonetheless responsible for more than half of all cases of acquired heart disease. Determining the actual burden of disease associated with RHD and ARF is crucial for the development of effective control strategies, prioritization of targeted interventions, and guidance of policy formulation. Accurate case detection of ARF/RHD is essential for determining the true burden of these diseases. To optimize case detection within a community, it is essential to inform all individuals about the clinical presentation and diagnostic criteria of the disease. It is particularly crucial for healthcare professionals operating at the primary healthcare level to possess the highest level of awareness. In South Africa, the legal obligation for disease notification is in place; however, a review of the notifications has revealed that this requirement has not been adequately emphasized, nor has the process of notification been properly executed. Such behavior has led to an insufficient representation of the burden of ARF. [27] Research have shown that ARF is often not diagnosed properly in healthcare facilities in developing countries, and thus can be only diagnose through various autopsies.[27] Thus, these findings from the studies suggest a significant likelihood of multiple missed diagnoses and their associated tragic outcomes. [27]

It is of the utmost importance to improve the general public's comprehension of the consequences of bacteria affecting & leading to these diseases. Due to this increased awareness, there is a larger likelihood that individuals will seek health care for their sore throat, which will in turn enable the earlier presentation of signs and symptoms that are diagnostic of ARF. Due to the fact that children of school age are the most susceptible group for GAS infections, educational institutions must be given priority. The ability of these institutions to improve the accessibility of primary and secondary preventive measures, as well as the identification of cases, is a significant capability.[28] The burden of disease, on the other hand, has major consequences for health, the economy, and sociodevelopment.[29] Building organizational structures to support & control patients from these diseases by national finances could help the countrymen to increase their knowledge regarding prevention and if affected then treatment for the same. Another thing that may be done is to raise political awareness about this disease.

4. BARRIERS TO AWARENESS & EDUCATION

The fact that the nations dealing with RHD are simultaneously tackling other significant health challenges is understandable. From the findings of the Tanzanian study, found that just 38% of the respondents considered that their clinic placed a high priority on the diagnosis and treatment (D/T).[30] The fact was that physicians were divided on the possible association with other health conditions that were considered to be of high priority, such as tuberculosis and malaria.[30] From a study, it was evident that additional resources in terms of personnel and structure are required to provide care across the globe.[31] A study have shown and concluded that, only 1.3% of the world's health workers provide care towards these patients.[32] Upon repercussions they were unable to provide adequate services, which could mainly focus on prevention and treatment.[32] The artificial boundary between primary health care and chronic disease treatment is slowly disappearing in favor of a more inclusive approach.[33] Physicians have reported trying to educate patients about the etiology, pathophysiology, and importance of sticking to secondary prophylaxis, but individuals still have extremely poor levels of understanding of the specifics of their disease. As a lot of variables are happening at the same time. In addition, it is also uncommon for patients to have different caregivers accompany them to the clinic or hospital for each visit. A significant part is played by language.[34]

5. STRATEGIES TO IMPROVE [35-38]

Below are some of the strategies to improve awareness which are as follows:-

1. Other aligned programs, such as the integrated management of childhood illnesses, provide an opportunity to incorporate essential messages regarding RHD.
2. Heart health for kids encompasses not only RHD but emphasizes the importance of healthy nutrition, regular exercise, and the cessation of smoking.
3. The influence of video platforms, including YouTube, have established connections with the younger demographic, who are considered to be at a higher risk.
4. Evaluation and evidence-based programming have received more attention. Many issues might arise during the evaluation of complex interventions, particularly if they have not been well specified and established. Due to the complexity of these interventions, it is crucial to establish new criteria for their design and evaluation.

6. CONCLUSION

As a disease, ARF/RHD is associated with social exclusion, poverty, and inequality. Using simple, inexpensive precautions, it may be completely avoided. We have evidence from previous and present efforts, implemented in different regions around the globe, that comprehensive programs incorporating awareness-raising, monitoring, and prevention may not only control RHD but also establish a global RHD agenda and construct a platform for cooperation. A successful program for the control and prevention of RHD must include communication and health promotion. By incorporating these elements into translational research, this understudied yet catastrophic disease will get the necessary attention.

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