RE-EMPHASIZING SCONDARY PROPHYLAXIS ON ACUTE RHEUMATIC FEVER IN RESOURCE POOR SETTINGS

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Acute Rheumatic Fever (ARF) is one of the important causes of cardiovascular morbidity and mortality worldwide particularly that of developing country.[1] The incidence of ARF in children aging 5 to 15 years ranges from 10 to 374 cases per hundred thousand population.[2] The disease is more common in the overcrowded area and among the people with poor socioeconomic condition and those who have limited access to health care, though occasional outbreaks have been reported in developed world. Limited data are available on the burden of ARF and Rheumatic Heart Disease (RHD) in Nepal. Nepal Heart Foundation (NHF) has estimated RHD at the rate of 2 per 1,000 school children and approximately 75,000 patients of RHD are present in Nepal.[3]

Primary prevention of ARF is done by proper antibiotic treatment of tonsillopharyngitis caused by group A beta hemolytic streptococcal infection. The patients who had previously suffered from ARF are at high risk of developing recurrent infection so they require continuous secondary antibiotics prophylaxis for recommend duration.[4] Rheumatic fever occurs at the rate of 0.1% to 3% of the group A beta hemolytic infection. In contrast the recurrence rate of rheumatic fever rises up to 50% with the infection if the person had rheumatic fever previously.
Secondary prevention are currently thought to be more cost effective for prevention of RHD than primary prevention and may be only feasible option for low to middle income countries.[5]

Secondary prophylaxis is of paramount importance because recurrent rheumatic fever not only increases the risk of cardiac disease but also accelerates and worsens the lesion. So if secondary prophylaxis is not available in timely manner there will be more likely to develop significant chronic valvular heart disease and increase in disease burden. In the resource poor settings like ours where only limited options of interventions and surgery are available, our focus should be on strengthening the facility of secondary prophylaxis. It is not just cost effective but also easy to implement as compared to complex procedures like valve replacement.

World Health Organization (WHO), American Heart Association and other authorities have published guidelines and recommendations for secondary prophylaxis. Intramuscular injection of Benzathine penicillin G every 3 weekly is recommended in the places where incidence of rheumatic fever is high(Class I, Level of evidence A).[6,7] The use of oral penicillin V on daily basis is an alternative to the injection but it has been shown to be less effective than intramuscular injection.[8]

To conclude, Secondary prophylaxis in ARF preferably with intramuscular injection of Benzathine penicillin is one of the most important intervention to limit the morbidity and mortality associated with RHD. Every possible measure needs to be taken for the continuation of the therapy as per recommended durations in the guidelines. Increasing the awareness about the benefit of treatment and improving the availability of the medicine can help to improve the adherence of therapy.

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