TRACHOMA AND MASS DRUG ADMINISTRATION

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Trachoma is an ancient infective disease involving the cornea and conjunctiva that resulted in rampant blindness in almost all the communities of the world before the advent of antibiotics and public health measures.[1] The scourge still haunts us and even in the last decade of 20th century it was the leading cause of blindness after cataract globally.[2] The World Health Organization launched the Global Elimination of Trachoma programme for elimination of the disease by 2020 (GET2020) in 1996 – a target that seems out of reach even till now.[3]

Elimination implies a reduction to zero of an infection and its transmission in a geographically defined region whereas eradication means complete and permanent reduction to zero of infection worldwide through deliberate efforts. The former needs constant surveillance and reporting of re-emergence whereas the latter does not need any strict watch.[4] To date small pox remains the only disease to have been eradicated. So the main emphasis is on elimination of most of the diseases like polio, dracunculosis and Trachoma. With efforts to eliminate polio being successful globally, attention has now been focused on its eradication (only Pakistan, Afghanistan and Nigeria are left with this disease).

Trachoma is endemic in some global regions including some pockets in Pakistan but has been eliminated from most of the countries. Authorities have started talking about eradication of trachoma due to some specific characteristics such as humans being the only host, antibiotics (Azithromycin) being effective with no antibiotic resistance developed yet. But there is another important aspect that could be the best point in our favour – the secular trend (variation in disease incidence with a long span of time). In many countries of the world, trachoma was reduced to zero without any active intervention or even a specific public health program directed against the disease.[5-10]

WHO recommends mass drug administration (MDA) with a single-dose of oral azithromycin as the most effective treatment of ocular chlamydial infection.[11,12] In this regard, International Trachoma Initiative (ITI) in collaboration with Pfizer, Inc. have distributed 1 billion doses of azithromycin globally including Pakistan. According to WHO, control means reduction to less than 5% in children of follicular trachoma stage (TF). But recent studies have shown that whereas any association between TF and actual infection decreases after MDA, TF can still be seen for quite some time even after the infection has ceased to be present.[13,14] Population based surveys in previously trachoma endemic countries like Nepal, Mexico etc. revealed that prevalence of Chlamydia Trachomatis confirmed by polymerase chain reaction (PCR) was much less than TF (which was therefore considered as false positive).[2-4]

It is interesting to note that despite WHO recommendations for sanitation, face washing and construction of sanitary latrines such measures have not been proved to have an effect on trachoma infection and so they might not be considered as important or perhaps adjunct measures to MDA.[15,16] In most of the cases increased frequency of MDA (2-4 times a year) has proved to be more effective than MDA done annually.[17-20]

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