

## Can the treatment of neighbouring villages be the key to ending the trachoma endemic in rural Pakistan?

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*Madam,* Trachoma is a severe eye condition caused by the bacterium *Chlamydia trachomatis* that can lead to blindness if left untreated. It spreads quickly through direct contact with infected eyes, hand-eye contact, contaminated objects, and flies, making developing countries with overcrowded living conditions and poor sanitation more vulnerable. Trachoma is highly prevalent in more than 50 nations globally. Without proper treatment, it can cause significant damage such as corneal scarring and complete vision loss. Currently, approximately 1.8 million people suffer from blindness due to trachoma.<sup>1</sup> Given these circumstances, it becomes crucial for endemic countries to prioritise efforts to control the spread of trachoma and prevent its potential complications.

A recent study by Mosenia et al. explored the potential impact of treating nearby communities during a trachoma outbreak in Ethiopia.<sup>2</sup> The researchers found that treating nearby communities with azithromycin significantly decreased in trachoma prevalence in 12 months. In fact, in the subgroup where nearby communities received treatment, there was an impressive drop in the prevalence rate from 43% (95% CI:39%-47%) to just 11% (95% CI:9%-14%). In contrast, in communities closer to untreated regions, the prevalence of ocular chlamydia was significantly higher compared to other areas before treatment initiation. Not only did their prevalence rate remain near the baseline of around 46% (38%-54%), but after controlling for various factors, these communities showed a significantly higher frequency of ocular chlamydia.

These findings highlight the effectiveness of community-wide interventions in reducing trachoma transmission and

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infection rates. Trachoma is a major problem in Pakistan, ranking as the fifth most common cause of blindness according to a 2017 study.<sup>3</sup> Despite efforts to decrease infection rates, trachoma remains endemic in many rural villages, posing a significant public health challenge.<sup>4</sup> Thus treating affected villages and nearby communities, could significantly contribute to eradicating trachoma from these areas. This localized intervention offers a more time and cost-effective solution than largescale methods like improving living conditions or infrastructure. However, it's crucial to address concerns regarding the emergence of a highly drug-resistant strain of typhoid in Pakistan as this limits the use of azithromycin for treatment. Therefore, before implementing such interventions, a comprehensive risk-benefit analysis should be conducted considering the population and the current public health situation in Pakistan. It remains essential for ongoing research efforts to study the effectiveness of this strategy utilizing alternative treatments for trachoma.

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#### Author Contribution:

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