

virus strains in India do not cause microcephaly. This conclusion is based on the absence in Zika viruses isolated in Rajasthan of a single mutation⁵ that has been associated with neurovirulence in vitro and in mice.¹⁰ No genetic or epidemiological data exist to support this claim, which we consider to be dangerously simplistic.

We believe that data for India similar to that reported by Ruchusatsawat and colleagues for Thailand are urgently needed, allowing Indian authorities to adopt the most appropriate public health strategies to deal with the risk of a major Zika outbreak.

We declare no competing interests.

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Bedaquiline and delamanid in combination for treatment of drug-resistant tuberculosis

Here we report on the final outcomes for the cohort of 28 patients from Armenia, India, and South Africa who initiated regimens containing the combination of bedaquiline and delamanid from January to August, 2016, for the treatment of multidrug-resistant tuberculosis in our cohort study.¹ The median duration on combination treatment was 12 months (interquartile range [IQR] 5.9–20.0); 17 (61%) of 28 patients received the combination for more than 6 months.

Overall, 13 (46%) patients were cured or completed treatment, five (18%) died, five (18%) were lost to follow-up, four (14%) had treatment failure, and one (4%) was transferred-out. There were no significant differences on the basis of HIV status. One death was previously reported as probably due to immune reconstitution inflammatory syndrome;¹ four additional deaths were considered to be a result of meningitis in advanced HIV (in two patients), disease progression and treatment failure (in one patient), or cardiopulmonary failure (in one patient). Median time to loss to follow-up was 6.7 months (IQR 6.2–14.9). Of four cases of treatment failure, two never had sputum culture conversion and two had sputum culture conversion by month 6 but reconverted to positive.

In total, there were 26 serious adverse events (SAEs) encountered by ten (36%) patients; an overall incidence of 6.22 SAEs per 100 person treatment months. One instance of QT corrected by means of the Fredericia prolongation greater than 500 msec at month 7 was reported.

In light of WHO recommendations,² our data constitute a meaningful

contribution to the evidence base, which has a paucity of programmatic data on the use of bedaquiline and delamanid in combination.³ Given the complex resistant strains of multidrug-resistant tuberculosis observed among this cohort (86% with fluoroquinolone resistance) and the severity of the cases, a treatment success rate of 46% is not surprising in light of the poor prognosis anticipated.⁴ Additionally, our data support the safety of using bedaquiline and delamanid in combination, with a reassuring cardiotoxicity profile and relatively few SAEs directly attributed to the combination.⁵ Earlier initiation of effective regimens would improve the chance of cure for patients with few therapeutic options. Concomitant use of effective drugs should be ensured for such patients, while awaiting the findings from ongoing clinical trials.

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