

JOURNAL CLUB

Delaminid for multidrug-resistant pulmonary tuberculosis

Delaminid (OPC-67683) is an investigational drug for tuberculosis from a new class (nitro-dihydro-imidazooxazole derivatives) that inhibits synthesis of mycolic acid. This multi-centre phase 2 randomised clinical trial evaluated the efficacy and safety of delaminid at two doses (100 mg bd, 200 mg bd) versus placebo administered for 8 weeks in combination with a standardised background regimen for multidrug-resistant pulmonary tuberculosis.

Delaminid increased the proportion achieving sputum culture conversion at 2 months (45% and 42% at 100 mg and 200 mg, respectively) compared with placebo (30%). Time to culture conversion was also significantly shorter with delaminid.

In general, delaminid had an acceptable safety profile, but the one concerning finding was that prolongation of QT interval on ECG was more common in both delaminid groups (10% and 13% for 100 mg and 200 mg, respectively) compared with placebo (4%). The episodes of prolonged QT interval were not associated with any clinical events. Further surveillance for cardiotoxicity will be essential as development moves forward.

Delaminid is one of a number of drugs that now offers hope for improved treatment of drug-resistant tuberculosis. It should be noted that this trial only included four HIV-infected participants and excluded those with CD4 cell count <350 cells/ μ l and those on antiretroviral therapy. A phase 3 trial is already underway, which will, in certain sites, include HIV co-infected participants, and which will report on longer-term outcomes. The use of delaminid alongside other investigational agents in novel regimens is also an area of particular interest for future research.

► Gler MT, Skripconoka V, Sanchez-Garavito E, *et al.* Delaminid for multidrug-resistant pulmonary tuberculosis. *N Engl J Med* 2012;366:2151–60.

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