**Telithromycin**: visual disorders

Telithromycin is a macrolide antibiotic with a negative risk-benefit balance. Its efficacy is no better than that of other macrolides. Telithromycin carries a risk of serious adverse effects, including loss of consciousness, QT prolongation, severe liver damage, aggravation of myasthenia gravis, and a high risk of drug interactions.

In Finland, a 7-year pharmacovigilance review identified 20 reports of visual disorders among patients taking telithromycin, including blurred vision, accommodation disorder and diplopia, mainly in young patients and women.

These visual disorders may result from reversible paralysis of the ciliary body due to telithromycin.

In practice, these visual disorders, which can be dangerous when driving or operating heavy machinery, add to the already long list of adverse effects of telithromycin. They are yet another reason not to use telithromycin, but rather a safer macrolide such as spiramycin.

Telithromycin is a macrolide antibiotic (a)(1-3). There is no evidence that it is more effective than other macrolides, regardless of the bacterial species involved (1). Telithromycin shares the adverse effects of all macrolides, mainly including gastrointestinal disorders (diarrhoea, nausea and vomiting, abdominal pain and dyspepsia) and neurological disorders (headache and dizziness). It can also prolong the QT interval when used at the standard oral doses, and also provoke severe liver damage, aggravate myasthenia gravis, as well as cause loss of consciousness (1-4). In addition, like other macrolides, with the exception of spiramycin, telithromycin can interact with many other drugs, with potentially serious clinical consequences (1-3).

Visual disorders were first observed during clinical trials of telithromycin (1-4). A Finnish review of pharmacovigilance reports published in 2009 examined the frequency, characteristics and reversibility of these ocular adverse effects (5).

In 2006 and 2007, certain indications were restricted to second-line use due to serious adverse effects (ref 8).

Telithromycin is sometimes associated with visual disorders. Even if they are usually moderate and transient, they can be troubling and may make driving or operating heavy machinery dangerous (7).

A Finnish review: generally reversible visual disorders. The Finnish drug regulatory agency has published a 7-year review of pharmacovigilance reports concerning telithromycin since its market introduction in 2002. It mentions 20 reports of visual disorders out of a total of 52 reports involving telithromycin (5).

Eight patients had blurred vision and 6 had miscellaneous visual disorders including loss of near or distant visual acuity, image distortion, and visual field disorders. Diplopia, ocular pain and oculogyric episodes were occasionally reported, sometimes associated with general symptoms such as headache, nausea, malaise, and dizziness (5).

In 2007, the European SPC was modified in 2007 to recommend taking the drug at bedtime, in order to reduce the potential impact of visual disorders and loss of consciousness (ref 8).

**Visual disorders in 1% of patients.** In clinical trials, reversible visual disorders were more frequent with telithromycin than with comparator antibiotics (5,6). According to the US Food and Drug Administration (FDA), visual disorders occurred in 0.7% of patients taking telithromycin (5).

In 2004 and July 2006, FDA recorded 390 cases of visual disorders associated with telithromycin, 71 of which were serious (b)(4).

The Finnish review mentions a study based on an Italian register of visual adverse effects attributed to macrolides. Nearly half of the reports involved telithromycin and blurred vision and/or diplopia occurred in about half of the cases linked to telithromycin (5).

**Ciliary body dysfunction**? Ophthalmological findings were normal in patients with visual disorders due to telithromycin (3).

The underlying mechanism is not entirely clear. One possibility is a reversible effect of telithromycin on the ciliary body, delaying ciliary muscle relaxation and thus affecting accommodation (6).

In practice, Telithromycin is sometimes associated with visual disorders. Even if they are usually moderate and transient, they can be troubling and may make driving or operating heavy machinery dangerous (7).

It is time for the regulatory agencies or the manufacturer to withdraw telithromycin from the market.

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**Selected references from Prescrire’s literature search.**

1- Prescrire Editorial Staff “Telithromycin” Prescrire Int 2003; 12 (61): 8-12