Neuropsychological effects of macrolides

- Pharmacovigilance data collected from several European countries show that macrolides can provoke neuropsychological adverse effects such as hallucinations, delirium, manic episodes and sometimes depression, in both adults and children. These effects seem to be rare and are reversible on macrolide withdrawal.

- In practice, keep in mind that if neuropsychological disorders can be attributed to macrolides, treatment should be halted.

The principal adverse effects of erythromycin are gastrointestinal disorders, reversible ototoxicity and cardiac arrhythmia. Other potential problems including liver damage, pancreatic disorders, cutaneous reactions are less frequent. Neuropsychological disorders caused by macrolides in both adults and children. These episodes and sometimes depression, mania, neurotic disorders, abnormal thinking or nightmares, hallucinations, agitation and anxiety. The effects occurred on treatment within 48 hours after clarithromycin initiation. The problems resolved in 1 to 12 days in the 8 patients whose outcome was known.

An Italian pharmacovigilance bulletin reported that in 2008 the Italian pharmacovigilance database contained 15 reports of hallucinations in patients treated with clarithromycin. The principal adverse effects of erythromycin are gastrointestinal disorders, reversible ototoxicity and cardiac arrhythmia. Other potential problems including liver damage, pancreatic disorders, cutaneous reactions are less frequent. Neuropsychological disorders caused by macrolides in both adults and children. These episodes and sometimes depression, mania, neurotic disorders, abnormal thinking or nightmares, hallucinations, agitation and anxiety. The effects occurred on treatment within 48 hours after clarithromycin initiation. The problems resolved in 1 to 12 days in the 8 patients whose outcome was known.

A variety of macrolides implicated. In 2000, the Belgian Pharmacovigilance Centre reported that 14 cases of neuropsychological adverse effects linked to azithromycin, clarithromycin, dirithromycin and roxithromycin had been received between 1995 and 2000. Four cases involved children under 10 years of age. The adverse effects included dizziness, nightmares, hallucinations, agitation and anxiety. The effects occurred on treatment initiation in 10 cases, and on the first day of treatment in 7 cases. The patients whose outcome was known all recovered (7).

In practice. When a patient presents with recent-onset neuropsychological disorders, it is important to bear in mind the possible role of a drug, including non-psychotropic drugs, particularly macrolides. It is better to avoid exposing patients to these types of adverse effects when the risk-benefit balance of the drug in question is clearly unfavourable, as is the case with telithromycin.

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