primary studies - published, non RCT

The long-term safety of chronic azithromycin use in adult patients with cystic fibrosis, evaluating biomarkers for renal function, hepatic function and electrical properties of the heart.

Code: PM34030570 **Year:** 2021 **Date:** 2021 **Author:** Akkerman-Nijland AM

Study design (if review, criteria of inclusion for studies)

Retrospective study

Participants

Adult CF patients (72 patients using azithromycin for a cumulative period of 364.8 years and 19 controls, 108.8 years) from two CF-centers in the Netherlands

Interventions

Azithromycin maintenance therapy

Outcome measures

Safety. Renal function, hepatic cell toxicity and QTc-interval prolongation.

Main results

There was no difference in mean decline of estimated glomerular filtration rate (eGFR), nor in occurrence of eGFR-events. No drug-induced liver injury could be attributed to azithromycin. Of the 39 azithromycin users of whom an ECG was available, 4/39 (10.3%) had borderline and 4/39 (10.3%) prolonged QTc-intervals, with 7/8 patients using other QTc-prolonging medication. Of the control patients 1/6 (16.7%) had a borderline QTc-interval, without using other QTc-prolonging medication. No cardiac arrhythmias were observed.

Authors' conclusions

No renal or hepatic toxicity, nor cardiac arrythmias during azithromycin use in CF patients for a mean study duration of more than 5 years. One should be aware of possible QTc-interval prolongation, in particular in patients using other QTc-interval prolonging medication.

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See also

Expert Opin Drug Saf. 2021 Aug;20(8):959-963. doi: 10.1080/14740338.2021.1932814. Epub 2021 Jun 7.

Keywords

Adolescent; Adult; Anti-Bacterial Agents; Azithromycin; Bacterial Infections; Infection; pharmacological_intervention; Pneumonia; Respiratory Tract Diseases; Respiratory Tract Infections; Macrolides; Anti-Inflammatory Agents; Anti-Inflammatory Agents - excl Steroids;