

Antibiotics with a curse of cardiovascular risk

NEWS

In a first of its kind study, use of the macrolide clarithromycin has been found to be associated with increased risk for CV events in patients with exacerbations of chronic obstructive pulmonary disease (COPD) or community-acquired pneumonia.^[1]

RE (VIEWS)

Lung disease and CV risk

Community-acquired pneumonia^[2] and exacerbation of COPD^[3] have *per se* been reported to be associated with an increased risk of CV (myocardial infarction) and vascular (stroke) events. It has been suggested that the inflammatory state in infected

patients promote platelet activation and thrombosis, destabilise vascular endothelium leading to an imbalance between myocardial oxygen supply and demand.

Antibiotic drugs and CV risk

A significantly higher CV mortality from short term (2 weeks) clarithromycin use in patients with stable coronary heart disease^[4] and long term CV risks associated with macrolides^[5,6] use have been reported. Clarithromycin's pro-arrhythmic effects mediated through prolongation of the QT interval is also well known.

Disease, drug and CV risk

Not surprisingly, as a synergistic effect, the combination of the two disease (disease-COPD, community-acquired pneumonia and drug-clarithromycin) has been reported with a possible association with increased CV events.^[7]

The same study also suggests that use of β lactam antibiotics or doxycycline was not associated with increased CV events.^[7]

A recent study has raised that there are evidence-based concerns for cardiotoxicity with azithromycin and that the idea that azithromycin is essentially safe with regard to cardiac events is no longer valid.^[8]

REFERENCES

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