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Effect of proton pump inhibitor alone or in combination with clarithromycin on mycobacterial growth in human alveolar macrophages.

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Source

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Abstract

The effect of omeprazole, a clinically used proton pump inhibitor, alone or in combination with clarithromycin was evaluated against *Mycobacterium avium*, *Mycobacterium intracellulare* and *Mycobacterium tuberculosis*, using a human alveolar macrophage model of infection. Omeprazole exhibited no significant effect on the growth of the two *M. avium* complex strains or on the mycobactericidal activity of clarithromycin against them. In contrast, omeprazole significantly promoted the growth of *Mycobacterium tuberculosis* and the anti-mycobacterial activity of clarithromycin against it in human alveolar macrophages. It was speculated that intracellular acidic milieu around *M. tuberculosis* might be one reason for the lower activity of clarithromycin in the treatment of human tuberculosis.

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