Immunomodulatory Effects of Azithromycin Revisited: Potential Applications to COVID-19

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- The ability of azithromycin to blunt macrophage-driven neutrophil influx lends promise to the drug's potential impact on patients infected with SARS-CoV-2.
- Azithromycin's ability to promote regulatory macrophage characteristics could potentially restore the balance of inflammatory and regulatory macrophage phenotypes that are misaligned in patients with severe COVID-19.
- Multiple immunomodulatory effects have been defined for azithromycin which could provide efficacy during the late stages of the disease, including inhibition of pro-inflammatory cytokine production, inhibition of neutrophil influx, induction of regulatory functions of macrophages, and alterations in autophagy.
- This suggests the potential benefits of azithromycin in counteracting the hyper-inflammatory state in COVID-19.

Azithromycin is an immunomodulatory drug that has been shown to have antiviral effects and potential benefit in patients with COVID-19.