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Antibacterial activity of ozonized sunflower oil (Oleozon).

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AIMS: To evaluate the antimicrobial effect of the ozonized sunflower oil (Oleozon) on different bacterial species isolated from different sites. METHODS AND RESULTS: The effect of Oleozon on Mycobacteria, staphylococci, streptococci, enterococci, Pseudomonas and Escherichia coli was tested. The sunflower oil was ozonized at the Centro de Investigaciones del Ozone (CENIC, Havana, Cuba) by an ozone generator. MICs were determined by the agar dilution method. For Mycobacteria, the MIC of Oleozon was determined on solid medium by a microdrop agar proportion test. Oleozon showed antimicrobial activity against all strains analysed, with an MIC ranging from 1.18 to 9.5 mg ml-1. CONCLUSION: Oleozon showed a valuable antimicrobial activity against all micro-organisms tested. Results suggest that Mycobacteria are more susceptible to Oleozon than the other bacteria tested. SIGNIFICANCE AND IMPACT OF THE STUDY: The wide availability of sunflower oil makes Oleozon a competitive antimicrobial agent. These results should prompt the setting up of some clinical trials to compare Oleozon with other antimicrobial agents.

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