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Enhancement of Antibiotic Activity against *Staphylococcus au* Exposure to Hyperbaric Oxygen

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Abstract

Growth of *Staphylococcus aureus* ATCC 6538P was studied in stationary broth cu deep) exposed to hyperbaric oxygen (100% O_2 at 3 atm absolute). The minimal in concentration (MIC) of the following antibiotics was determined after exposure to oxygen (HPO) for 3, 6, and 12 hr: penicillin, streptomycin, tetracycline, oxytetracy and cephalothin. Logarithmic growth during exposure to HPO was retarded 60%. absolute did not retard growth. The longer the exposure of tube dilution tests to HI MIC. Regardless of the antibiotic used, MIC values relative to 100% for unexpose similar for given exposures, and averaged 73% after 3 hr of exposure to HPO, 53% 34% after 12 hr. Similar enhancement with HPO and an iodophor suggests occurre phenomenon with antibacterial agents. Although HPO alone is primarily bacterios therapy with antibiotics and HPO may be useful against bacterial infections becau effectiveness of a maximal dosage of antibiotic could be increased.