Bismuth-Inhibitory Effects on Bacteria and Stimulation of Fungal Growth In vitro

Authors : Sulaiman B. Ali Alharbi, Bassam H. Mashat, Naif Abdullah Al-Harbi, Milton Wainwright, Abeer S. Aloufi, Sulamain Alnaimat

Abstract : Bismuth salicylate was found to inhibit the growth of a range of bacteria and yeast, Candida albican. In general the growth of bacteria did not result in the increase in bismuth solubilisation, in contrast, bismuth solubilisation increased following the growth of C. albicans. A significant increase in the biomass (dry weight) of Aspergillus niger and Aspergillus oryzae occurred in vitro when these fungi were grown in the presence of bismuth salicylate. Biomass increase occurred over a range of bismuth compound additions, which in the case of A. oryzae was associated with the increase in the solubilisation of the insoluble bismuth compounds.

Keywords : bacterial inhibition, fungal growth stimulation, medical uses of bismuth, yeast inhibition

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