Detection of Acetoin by head space-gas liquid chromatography for rapid identification of bacteremia caused by Klebsielleae

王惠珀 Ho SW;Shiueh PR;Wang HP

Abstract

Head-space gas-liquid chromatographic (HS-GLC) detection of acetoin in 223 blood cultures of gram-negative bacilli was compared with results obtained from the conventional identification method. Seventy-three out of 76 cultures of Klebsielleae, including Klebsiella pneumoniae, Klebsiella oxtytoca, Enterobacter cloacae, Enterobacter agglomerans and Serratia marcescens, were identified by the acetoin detection method with HS-GLC. One hundred and forty-six out of 147 blood cultures of other gram-negative aerobic and anaerobic bacilli did not produce acetoin. The findings indicate that the HS-GLC technique is a useful method with high sensitivity and specificity for identification of bacteremia caused by Klebsielleae.