

while at the same time determining the endogenous urinary metabolite, creatinine.

HPCE was used to determine creatinine and hippuric acid in the urine specimens of 56 subjects exposed to toluene vapors, and urinary creatinine and mandelic acid of 13 subjects exposed to styrene vapors.

The compounds were well separated from each other on a fused silica capillary utilizing a 20mM sodium tetraborate buffer (pH 9.65) with 15mM β -cyclodextrin. Separation was achieved with a constant voltage of 15kV with a current of 50-55 μ A and UV absorption was determined at 200 and 225nm.

Results obtained with the cyclodextrin electrokinetic chromatography (CDEKC) method showed a good correlation with those by the high-performance liquid chromatography (HPLC) method with respect to urinary concentrations of creatinine, hippuric acid and mandelic acid. Furthermore, urinary creatinine concentrations determined by CDEKC correlated well with those determined by the Folin method.

Effects of Teas on the Amount of Slime Production of Coagulase-negative Staphylococci

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Recently, it has been assumed that slime production by coagulase-negative staphylococci (CNS) was important as the cause of infections and much research has been done on the subject. Previously, measurements of the amount of slime were based on qualitative judgment by naked eyes. This study was an attempt to establish a quantitative measurement method.

The optimum conditions for slime production were set by comparing various plates and media. Slime which adhered to the plate wall was dissolved with hot PBS (-) after dyeing with fuchsin, and the absorption of the solution at 492nm was measured. Using this method, the amounts of slime for various CNS were measured and compared. Results showed that it was especially large in *Staphylococcus epidermidis*.

The influence of various teas and their components on slime production were examined and it was found that Japanese tea and tannic acid at sublethal concentrations greatly decreased slime production. Moreover, the effect of tannic acid was mirrored by its chemical components, (-) epigallocatechin gallate (EGCg) and (-) epicatechin gallate (ECg).

Studies on a Chemically Defined Medium for Coagulase

— Negative Staphylococci —

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In this report, simple, chemically defined media suitable for coagulase-negative staphylococci (CNS) are described. Those media are composed of 14 to 17 amino acids as the nitrogen source, glucose as the carbon source and a commercial mixture of salts and vitamins. Using the deletion method, 14 essential amino acids out of 18 component amino acids of casein, 3 additive amino acids and 1 eliminative amino acid were determined. Eight kinds of chemically defined media with various combinations of 14 essential amino acids and 3 additive amino acids were prepared, and used to examine some properties of two species of CNS (*S.epidermidis* and *S.capitis*).

As a result, growth attached to the bottom of plastic petri dish and a low amount of growth were observed in *S.epidermidis* grown in 4 kinds of alanine free media. On the other hand, both *S.epidermidis* cultured in 4 kinds of alanine containing media and *S.capitis* cultured in all 8 kinds of media showed good and non-attaching growth.