
ZURAK'S FUNGAL SELECTIVE MEDIUM

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INTRODUCTION: Increased in the incidence of fungal infections has raised our awareness about the prevalence of mucosal and systemic fungal infections, in all areas of the world. Invasive fungal infections are being seen increasingly in immunocompromised patients, particularly among those with malignancies and AIDS. Classical selective culture media contain antibiotics, but there are some fungi which are sensitive to some antibiotics, and more microorganisms are insensible to antibiotics. The growing prevalence of fungal diseases has meant an increased demand for laboratory diagnosis. It has also made us aware of the need to improve the diagnostic methods we use to identify a fungal infection. With increasing fungal infections amongst patients, clinical laboratories are facing the need to establish a means of new culture media without antibiotics. The aim and objective of this study were to examine the formulation of a medium without antibiotics for isolation of fungi from specimen that is heavily contaminated with bacteria.

MATERIALS and METHODS: On the elementary base medium which is enrichment nutrient agar, several selective supplements were studied. The best supplement was formamidinesulfinic acid («Sigma» F-5877), without sterilization in autoclave. While making acidly, pH medium can be unacceptable condition for growth of bacteria, it gave good results in selective isolation of fungi. Specimens used were feces (because there are containing mixed flora) and examination of stools can be directly plated to the surface of the medium, and incubation for 24 to 48 hours at 22°C to 28°C. The high selectivity of the medium enables the application of several samples on the same Petri dish (3-4 sectors). **RESULTS:** After 18-24 hours of incubation, better after extended incubation at 48 hours, the fungal colonies on "FSM" were so big that we could isolated it. Gram-negative and positive bacterial don't growth.

CONCLUSION: A highly nutritional medium enables a quick growth of colonies and therefore a quick test result. The increasing numbers of bacteria resistant to antibiotics, which are used as a selective additive to the medium, give rise to new selective supplements for the basic medium in order to increase the growth of Enterobacteriaceae. The result achieved with "FSM" justifies it's use in routine mycology. The importance of "FSM" can only be validated by an experienced mycology expert. Innovation defines preparations containing: peptones, vitamins, carbohydrates and salts

Keyword: Fungi; selective medium; mycology.