Thesis Title	*Urinary Enzymes and Carcinoembryonic Antigen in Patients with Carcinoma of the Bladder.*
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ABSTRACT

Serum and urinary enzymes and carcinoembryonic antigen were evaluated in 25 patients with carcinoma of the bladder. The results were compared with those of 50 normal subjects. A significant elevated activity of urinary alkaline phosphatase, arylsulfatase A, arylsulfatase B, β-glucuronidase, N-acetyl-β-D-glucosaminidase, lactate dehydrogenase and carcinoembryonic antigen was found (Mann Whitney U test, $p<0.001$). No significant changes of urinary γ-glutamyltransferase activity was observed in these patients. Serum alkaline phosphatase and γ-glutamyltransferase were also elevated significantly (Mann Whitney U test, $p< .001$) whereas other serum enzymes and carcinoembryonic antigen were not. In addition, these urinary enzymes and carcinoembryonic antigen were increased in corresponding to the advancement of carcinoma.