A comparative biochemical profile of cancer and normal cell *in vivo*

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**Abstract**

The classical biochemical approach to cancer includes measurements of the activities and regulation of enzymes, analyses of various cellular constituents and studies using subcellular fractions. This study was carried out to give an illustrative profile of the alteration in the major bioenergetic and biosynthetic pathways that might occur in neoplasia in parallel comparison to normal state. The previously reported high rate of glycolysis in neoplasia was confirmed in the present study by the significant decrease in serum glucose (P<0.05), increased activity of LDH (P<0.01), and the significant depletion in liver glycogen (P<0.01). Additionally, the antioxidant defense mechanism was affected by the obtained significant decrease in glutathione (GSH) and increased activity of superoxide dismutase (SOD) (P<0.05).

Key words: Neoplasia, Ehrlich Ascites Carcinoma, glycolysis, hypoglycaemia, and gluconeogenesis.