

Action of liver on the in vitro brain cortex respiratory process. A neurometabolic hepatic factor

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Regarding the stimulating effect of a filtrate from normal adult rat liver on the respiration of certain areas of normal adult rat CNS (brain cortex, diencephalon, midbrain) (1947) further results have been achieved: filtrates prepared from cirrhotic and acute necrotic liver (both induced by administration of CCl₄) do not show a stimulating effect on the brain cortex respiration; during the incubation of normal liver slices in Ringer Krebs PO₄ in aerobiosis a substance (s) or factor (s) diffuses to the physiological medium of incubation which stimulates considerably the normal brain cortex respiration; this effect is greater when the liver slices are incubated in presence of 10 mM Na pyruvate; the medium in which cirrhotic and acute necrotic liver slices are incubated does not show the action of normal liver; qualitatively glut NH₂ as also GABA and phenyl have been identified in the previous incubation medium of normal liver slices. These amino acids in conjunction have a stimulating ef