Plasma Insulin-Like Activity and Liver Damage in Diabetics

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The relationship of plasma Insulin-like activity (I.L.A.) with liver damage in diabetics was studied in this report. The plasma I.L.A. was measured by in vivo-assay using hypohysectomized-adrenalectomized-rats. The following results were obtained.

1) The diabetic who was diagnosed with complicated fatty liver by liver biopsy, had higher I.L.A. and the diabetic who was diagnosed complicating liver fibroses or cirrhosis, had lower I.L.A. There seems to be a disturbance of insulin utilization in the former and insulin deficiency in the latter.

2) Concerning the relation of plasma hepatic enzyme activity in diabetics, the activities of GOT, GPT, and G6Pase in diabetics having lower I.L.A. were lower than that in diabetics having higher I.L.A. No apparent change was observed in Alkaline phosphatase activity of both groups.

3) As for plasma I.L.A. and prognosis of liver function, liver function was improved by the treatment for Diabetes, more in cases of diabetics having high plasma I.L.A. than in cases of diabetics having low plasma I.L.A.

These findings indicate that there is an intimate relationship between plasma I.L.A. and liver damage in diabetics, and suggest that the deficiency of insulin may play directly or indirectly an important role on the complication of liver damage in diabetics.

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