

Secondary oral hypoglycemic agent (OHA) failure in Type 2 diabetes patients infected with Hepatitis C virus

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Objective

Chronic hepatitis C infection affects glycemic control by various pathophysiological mechanisms in patients with diabetes mellitus. This study was to evaluate the prevalence of secondary OHA failure in hepatitis C (HCV) diabetes patients compared with hepatitis B (HBV) and both hepatitis B and C negative [B, C(-)] diabetes patients.

Methods

Patients requiring insulin therapy regardless of HbA1c and those who had HbA1c >7% in spite of having maximum dosage (>75%) of 3 OHAs (Metformin, Sulphonylurea, and Thiazolidinediones) were considered as secondary OHA failure. This is a prospective study conducted on 1303 T2DM patients and their Hepatitis B and C status was checked by ELISA method. Glycemic control was done according to standard guidelines or with a personalized approach and reviewed at 6-months. Patients with HBV and HCV coinfection (n=10) were excluded. This study was observed in three groups, HCV(+) or HBV(+) or non-infected patients.

Results

Out of 1293 cohorts including 152 HCV(+), 111 HBV(+) and 1030 B, C (-) diabetics, a total of 270 (20.7%) had secondary OHA failure. Regarding the proportion of respective study population, HCV group was statistically significant in requiring insulin therapy and not achieving glycemic control with maximum OHA, compared with the remaining groups (42.1% in HCV (+)ve vs 27.02 % in HBV (+)ve and 17.1% in B,C(-) diabetics).

Conclusion

Secondary OHA failure and requirement of insulin therapy for glycemic control is significantly more in HCV infected diabetes patients. Therefore, for strict glycemic control, early intensification with insulin therapy is important in such patients.