summary
Alcohol is a drug with profound social implications. Alcohol consumption has markedly increased and is still increasing in countries all over the world. Diabetes is a prevalent chronic metabolic disorder and is often associated with many complications like coronary heart disease, retinopathy, neuropathy etc. The disease with these problems is further complicated in chronic alcoholics. In diabetics and alcoholics various pathological changes have been reported by earlier workers. The mechanism(s) of alcohol induced events in diabetics are not clearly understood. Plasma and erythrocyte have been found to be useful in obtaining preliminary information concerning the ethanol induced effects in diabetics. The present study was undertaken with a view to understand the biochemical changes in alcoholic diabetics, in particular by assessing the lipid peroxidative extent, blood constituents, erythrocyte membrane lipid profile and certain enzymes in plasma.

Increased lipid peroxidative extent in RBC membrane and intact red cells suggesting the damage caused by alcohol consumption in diabetics is an important observation in the present study.

A significant hike in the levels of blood glucose in alcoholic diabetic group indicated the severity of the disease in chronic alcohol abuse. A rise in lactate with no alteration in aminoacids suggests the increased operation of Cori cycle and inability of tissues to use gluconeogenic
lactate. Hyperlipemia seems to be a marked feature in the present study and is observed by increments in triglycerides, cholesterol, phospholipids and free fatty acids in plasma. A rise in GOT and GPT in plasma strongly indicated the hepato-cellular injury.

An increase in membrane cholesterol and phospholipid ratio in alcoholic diabetic group indicated a compensatory mechanism by providing resistance to ethanol-induced disordering, a fluidising effect. Further indepth studies on the mechanism of alcohol induced biochemical studies on membrane protein and individual phospholipid series and their interaction with ethanol are required.