ABSTRACT

Diabetes mellitus is extensive trouble in urbanized countries owing to drug treatment, consuming alcohol, usage of tobacco and also exaggerated some linked with various associated diseases. Still although a variety of contemporary day synthetic anti DM are used for the treatment of DM and its associated diseases but completely can’t cure the diabetes mellitus. Less number of hospitals are available in Coimbatore zone and also diabetic prevalence more. Based on the above reasons Survey is required to reduce the diabetes mellitus % of prevalence on Coimbatore zone. Cohort study was performed and collected 15000 DM Patients and also observed demographic data with the help of approved questionnaire and also HDL, LDL, TCH, WBC, RBC, HB, SGOT, SGPT, PTP, sodium, potassium and hematological variation were observed before & after the DM patients consuming drugs. The on top of study was carried out Karpagam Medical College-Hospital and various multispecialty hospitals and also which data were composed from inpatients and outpatients of DM. The survey findings expressed that the Patients which are not associated with DM but they have affected only with DM (498 Numbers & 33.2%) for lesser percentage and numbers when compared with DM associated diseases (802 Numbers & 53.5%) and also severe DM type-II patients numbers and percentage were more (982 Numbers & 65.5%) when compared with (518 Numbers & 34.5%) type-I DM and single diseases type –I DM patients numbers and percentage were more (200 Numbers & 38.6%). The DM patients glucose level alteration results were indicate to some extent increased Glucose level with DM (19.1 ± 0.0), DM Type-I (74.5 ± 2.74) DM Type-II (173.5 ± 6.85) when compared to regular well fit volunteer (125.7 ± 2.73) and 40-50 years age groups of the patients were higher prevalence of DM (553 Numbers & 36.9%). Non Vegetarian are exaggerated more numbers and percentage of DM (542 Numbers & 36.1%) when compare to Vegetarian (958 Numbers & 63.9%) and also prominently affected DM with professional workers (540 Numbers & 36%). Comparatively 80-100 Kgs body weight of DM patients prevalence increased in Coimbatore zone. In Coimbatore zone e type-I DM (470 Numbers & 31.3%) Patients prevalence were more-II DM Patients (396 Numbers & 26.4%) and non
smokers were very less (544 Numbers & 36.3 %). The result of inpatients indicated that the type-I DM prescriptions (228 Numbers & 15.2%) were more and also out patients of type – II DM prescription (788 Numbers & 52.5%) were more (290 Numbers & 19.4%). The type-I DM proportional statement indicated DM associated Hyperlipidemic (38 Numbers & 4.8 %), patients prevalence were more and also prescribed Poly therapy prescriptions (1155 Numbers & 77 %). The results of prescribed formulations Tablets were present in the more numbers in the prescriptions when compared to each other formulations. The guidelines based prescribed drugs (1388 Numbers & 92.5%) were more and also 22 brands were frequently prescribed drugs but collected data indicated more number of prescriptions containing Glimipride1mg / Metformin 500mg combination. Trejenta ( Linagliptin 5mg ), Rs.705 /- for 15 Tablets but single Tablets Rs.15/-, have more expensive when compared to each other branded drugs, which have working mechanism is same. Which reports indicated to categorized by different clinical condition such as mild, moderate, severe and lethal. Another view major ADRs reported in our study, which indicated anti diabetic drugs induced Hypercholestremia were constantly increasesed when compared to each other anti diabetic drugs induced diseases like as GIT Problem, Lactic acidosis, Haemolysis, Heart failure, Hepatotoxicity, and Kidney failure but except Hypoglycemia. With the combination of Glimipride+Amilodipine (G+A) administered and compared to other combination of drugs for DM Patients affected Drug Interactions (DI) were shown more when compared to Drug Comparison ( DC ) Food and Alcohol Interaction ( F&AI) and Intravenous Compatibility ( IVC ). The results of collected blood samples were expressed in the form of TCH levels DM + inflammation ( 35.1 ± 0.484↑), subsequent to drugs taken potassium levels DM associated diseases such as hypertension ( 0.590 ± 0.02543↑ ), PTP levels exposed that the DM + hyperlipidemic ( 1 ± 0.0296↑ ), myocardial infarctions ( 16.94 ± 0.4321↑ ) patients SGOT levels, sodium levels DM linked diseases such as DM + bradycardia ( 7.2 ± 0.2453↑ ), DM + congestive heart failure ( 980 ± 0.61 ↑ ) numbers of WBC ,( 12.6 ± 1.882 ) were HB elevated more, HDL variability results have shown DM + hyperlipidemic ( 0.78 ± 1.4252↓ ), RBC count indicated DM + inflammation ( 0.269 ± 0.08105↓ ), have shown DM & A patients after the drugs taken LDL
levels for hypertension (33.8 ± 3.291\textsuperscript{↓}) and subsequent to the drugs taken for DM + inflammation (1.65 ± 0.0032\textsuperscript{↓}). Our study founded new enzyme protein tyrosine phosphatase is responsible for DM and different associated disease condition and research workers to target PTP to find which PTP isomeric receptor is responsible for DM and associated diseases conditions. Finally in this work will be useful for reduce prevalence the DM and different associated diseases conditions.