Pattern and etiology of Electrolyte Imbalance in Hospitalized Diabetic Patients - A study of 100 patients

DR.TABASSUM SAMAD
M.O
IM 1
BIRDEM

Background

Diabetes is rapidly emerging as an important cause of mortality and morbidity in developing countries .

Diabetes is an established major risk factor for coronary heart disease (CHD), stroke, all cardiovascular diseases (CVD), end-stage renal diseases (ESRD).

Electrolytes play a vital role in maintaining homeostasis within the body. They help to regulate myocardial and neurological function, fluid balance and much more.

Diabetic nephropathy is one of the complications of diabetes mellitus, which ultimately leads to renal failure, and renal failure is the most common cause of electrolyte imbalance among hospitalized diabetic patient.

Other causes

Diarrhoea
Vomiting
Diuretic Use
Chronic Laxative Use

Electrolyte imbalance

Hyponatremia.

Aims & objectives

General Objectives

To see the pattern of electrolyte imbalance in hospitalized diabetic patient.

Specific Objectives

To identify the etiological factors

Inclusion criteria

Hospitalized Diabetic patients getting treatment .

Exclusion criteria

Cushing's syndrome

Addison's disease

On supplimental drugs

Advanced renal failure (S. creatinine more than 5mg/dl).

Methodology

Study design: *Cross-sectional study*

Place of study: *Department of Internal Medicine of BIRDEM Hospital*

Time of Study: *January – December 2008*

Study population: *Hospitalized diabetic patients*

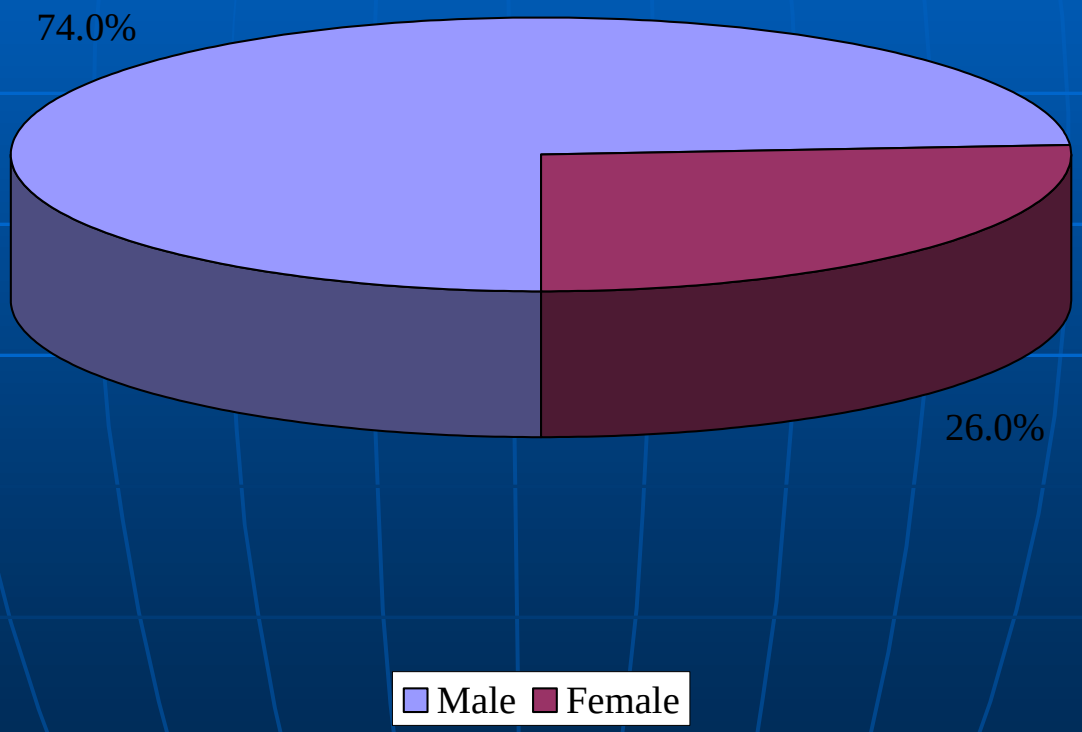
Sample size: 100 pt were taken as the sample

AGE

SEX
DISTRIBUTION

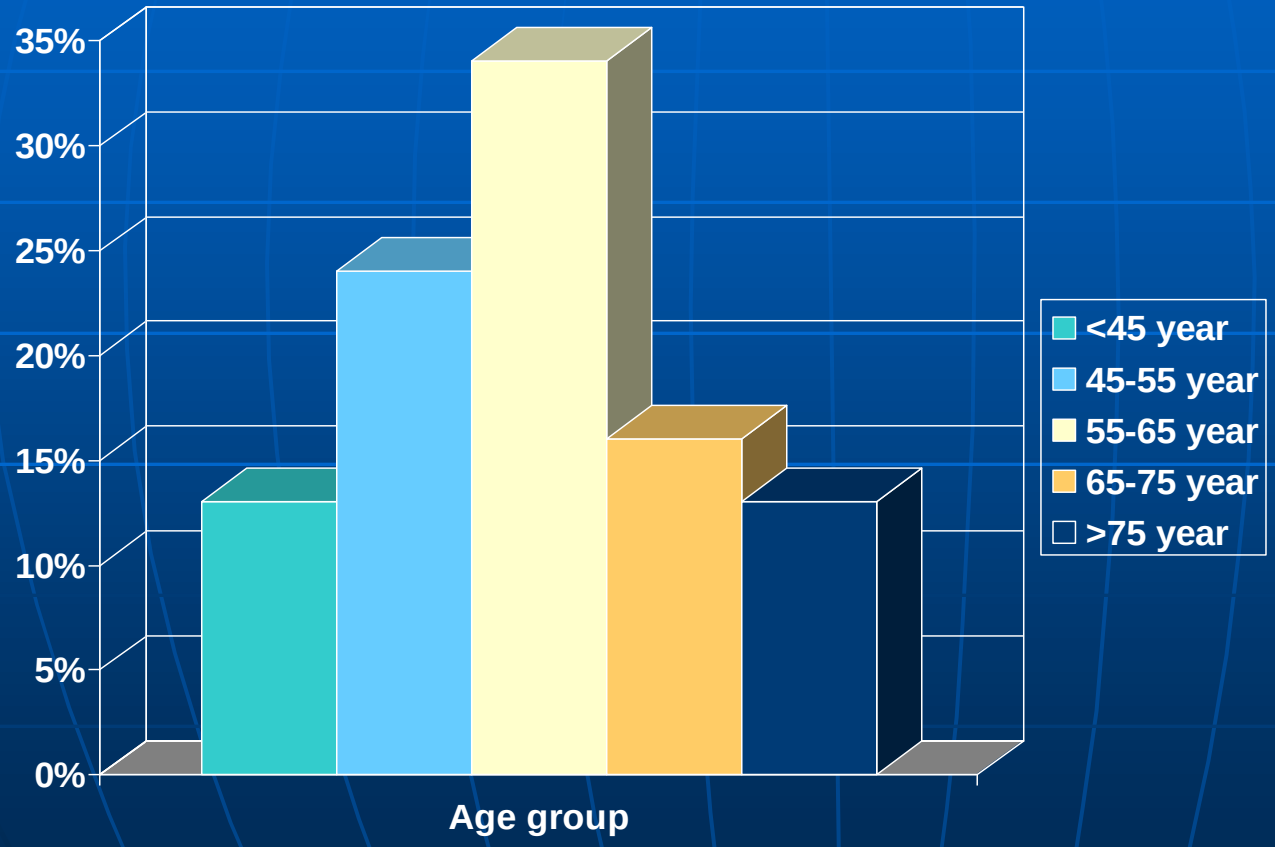
TREATMENT

Distribution of patient by sex

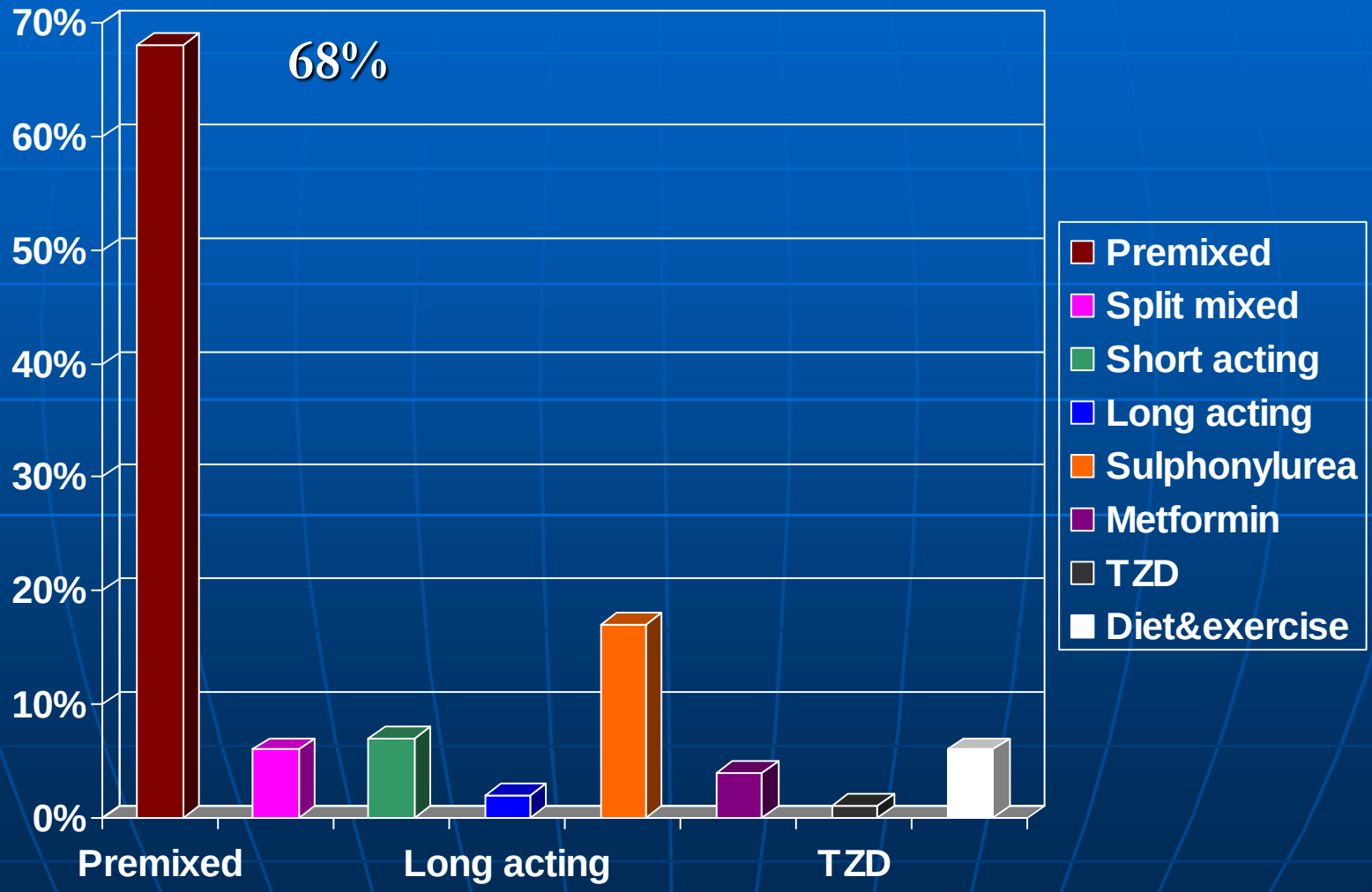


Age distribution of patients

Mean age: 60.18 ± 12.15 years

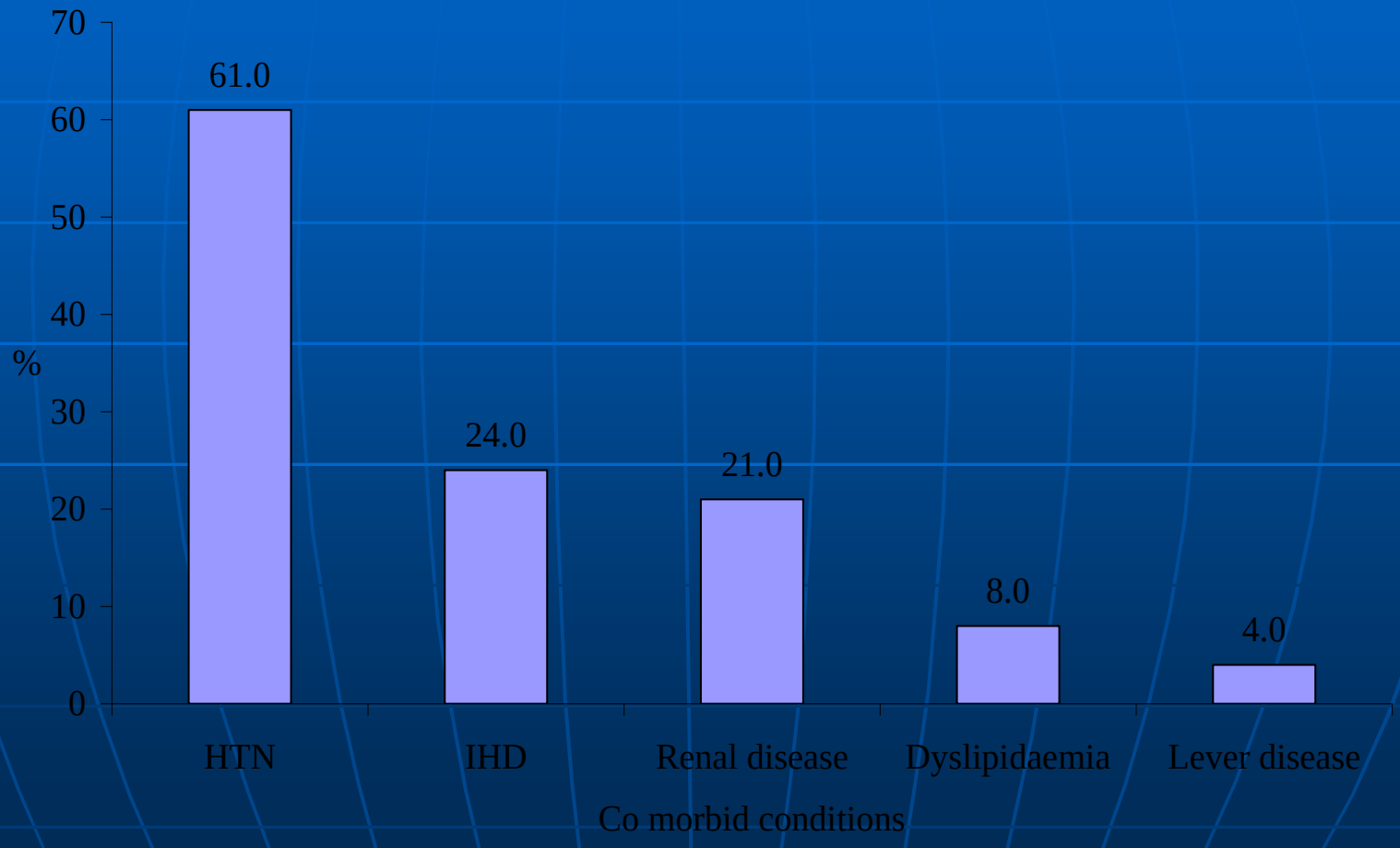


Type of Treatment

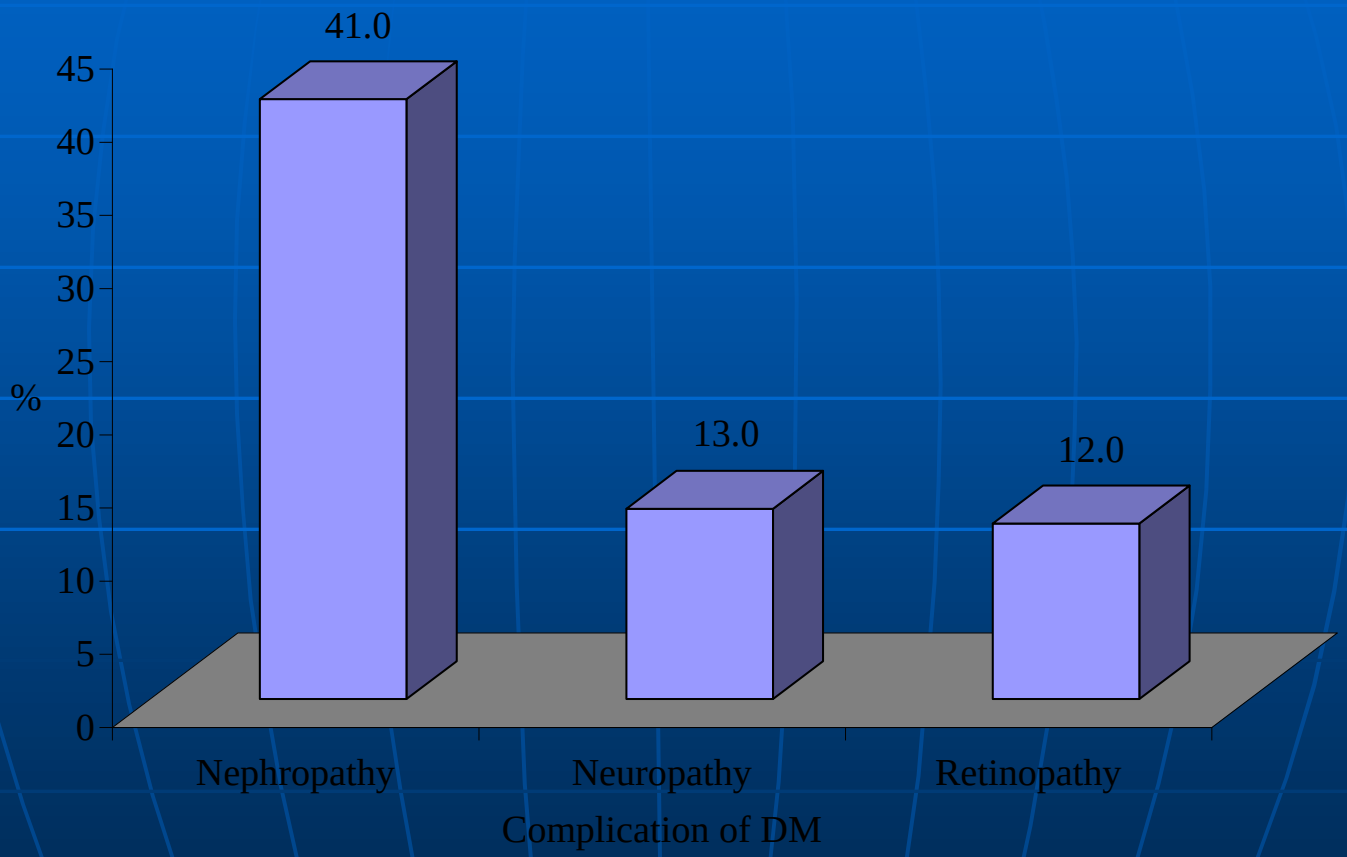


- CO-MORBIDITIES
- COMPLICATIONS

Distribution of the patients by co morbid conditions

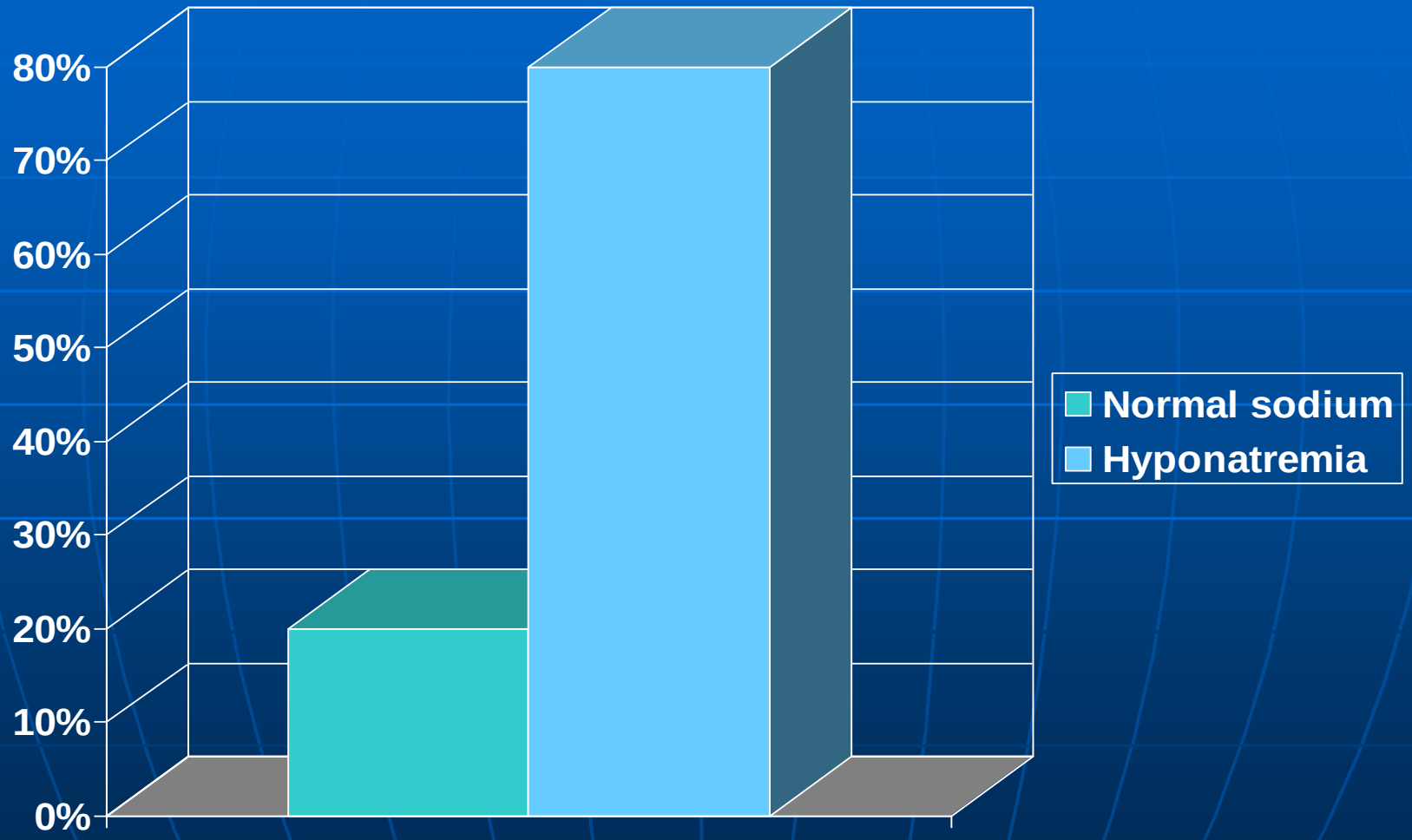


Distribution of the patients by complications of DM

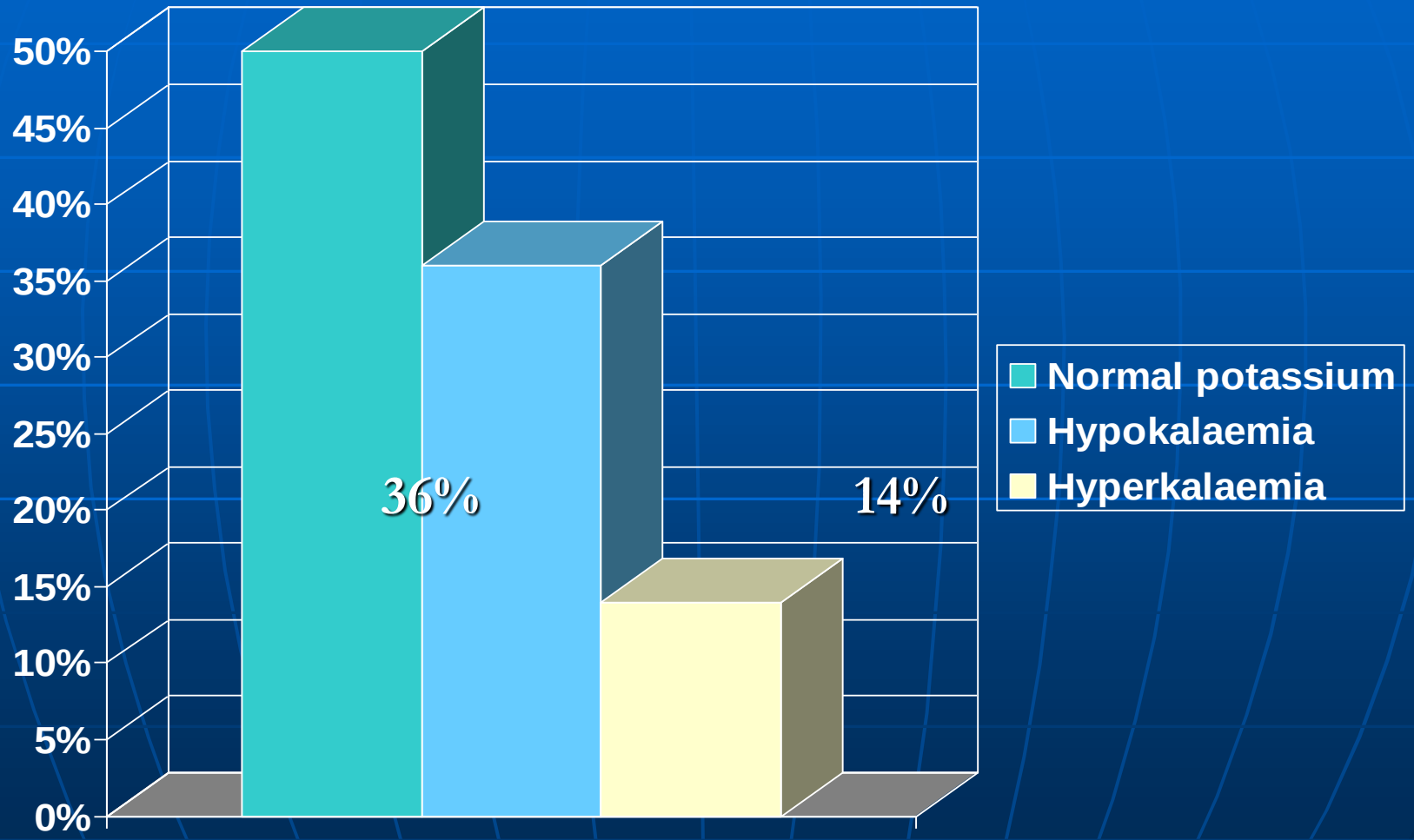


PATTERN OF ELECTROLYTE IMBALANCE

Distribution of the patients by Na 127.47 ± 8.11



Distribution of the patients by K 3.98 ± 1.13 mmol/l

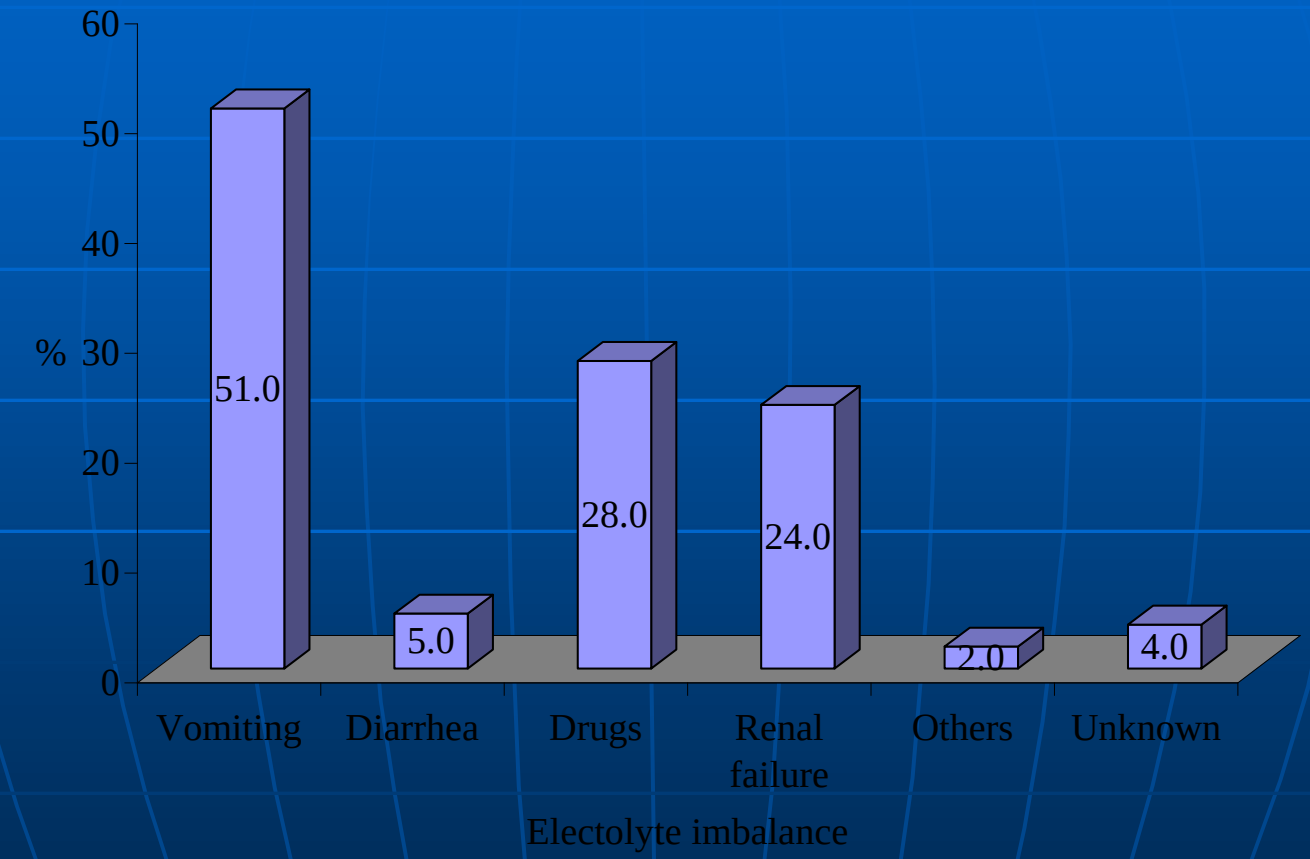


CAUSE OF ELECTROLYTE IMBALANCE

IN

HOSPITALIZED DIABETIC PATIENTS

Distribution of the patients by cause of electrolyte imbalance



Conclusion

- Electrolyte imbalance is a common problem encountered in diabetic patients.
- From the study it is evident that hyponatremia,hypokalaemia and hyperkalaemia are very common in hospitalized diabetic patients.

Conclusion

- The above mentioned electrolyte disturbances are mostly due to vomiting,drugs,renal failure and diarrhoea often precipitating on pre existing renal disease..
- Further study is needed for future policy implication to decrease the burden of non communicable disease.

Thank You All