Non Traumatic Aetiological Pattern of Unconsciousness among Patients in a Tertiary Care Hospital

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Introduction

- Unconsciousness usually referred to as loss of consciousness (LOC) or coma.
- Aetiology of acute confusional state(delirium) or coma are numerous and presentation also variable, so it creates confusion regarding the actual diagnosis and thus delay the prompt management which may result in fatal outcome in medicine ward.

Introduction cont'd

- There are many causes of coma ,including neurological (structural or non-structural brain disease) and non-neurological (e.g. type II respiratory failure) ones.

- The frequency of acute confusional states has been estimated to be as high as 11-42% in medicine in-patients and to cause additional costs of about 2500 USD per patient.

- Prevalence of ACS is 10-20 % & **incidence is 4-10%** of general medical admission.

Introduction cont'd

- The incidence increased to 18% in intensive care unit admission. It is found in 80% of terminal disease. For elderly patients the incidence is 35-50% .

- It is estimated that the physicians have a detection rate of only 35%, while if they apply the Confusional Assessment Method (C.A.M.) the detection rate reach to 90%

Aims & objectives

General objectives:

- To explore the non traumatic causes of unconsciousness

Specific objectives:

- To determine the nonstructural and medical cause of unconsciousness

Methodology

- **Study Design:** Observational cross sectional study.
- **Study place:** Dhaka medical college Hospital (DMCH),Dhaka.
- **Study period:** 5th November 2018 to 4th May 2019 (Six Months)
- **Sampling technique:** Purposive

Methodology cont'd

Inclusion criteria:

- All patients of aged >18 years irrespective of sex with GCS<8.

Exclusion Criteria:

- Patients below 18 years of age.
- Complication of anaesthesia.
- Complication of neurosurgery.
- Patients with history of trauma/ head injury.
- Patient with syncope /pre syncope.
- Patients/ Attendants of patients who show unwillingness to participate.

Results

Demographic characteristics of the study patients

NUMBER OF PATIENTS			
Age (years)	Male (n=66)	Female (n=34)	Total
18-30	18(27.3%)	12(35.1%)	30
31-45	8(12.1%)	0	8
46-60	12(18.2%)	6(17.6%)	18
61-75	22(33.3%)	12(35.3%)	34
>75	6(9.1%)	4(11.8%)	10

*(35.3%) belonged to 61-75 age group
•(35.1%) belonged to 18-30 age group
•(17.6%) belonged to 46-60 age group

Socioeconomic status of unconsciousness patients

Socioeconomic status	Number of patients	Percentage(%)
Upper class	8	16
Middle class	15	30
Lower class	27	54

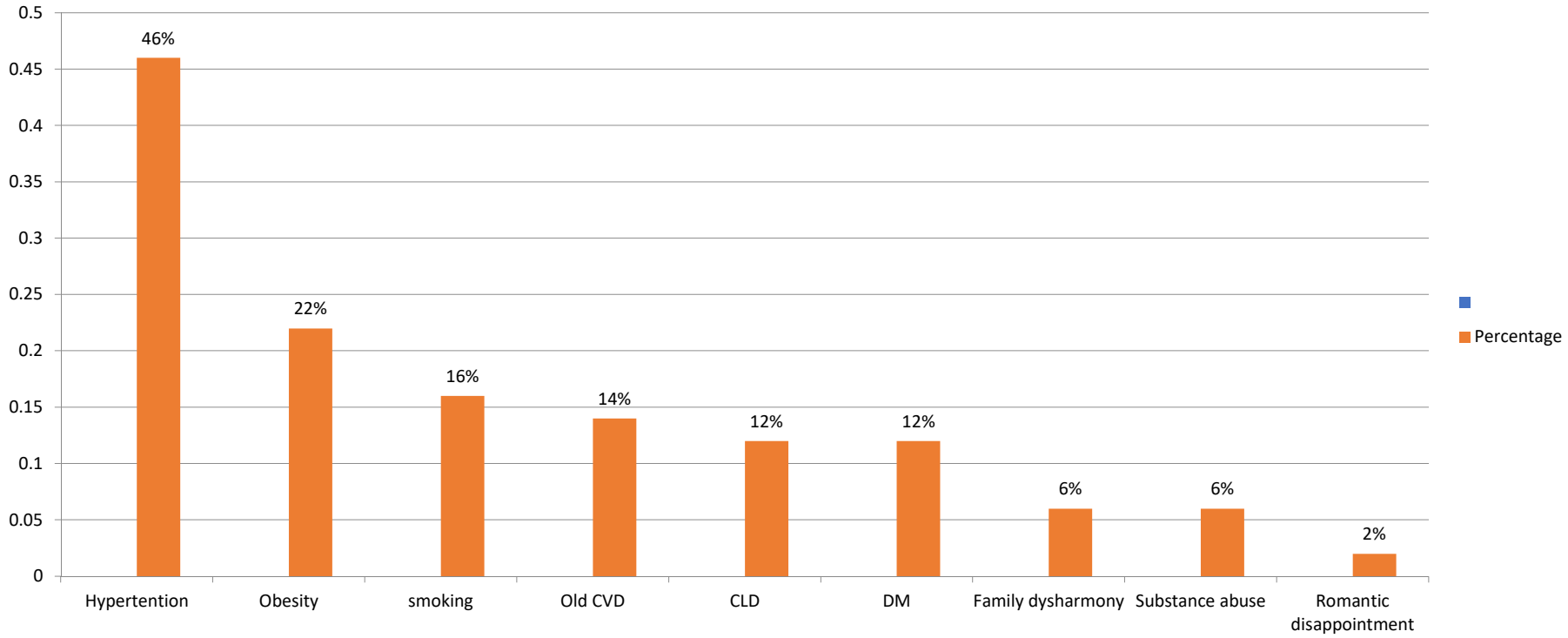
*Socioeconomically patients are grouped into three classes .

- Poor class GNI per capita income <7000 (tk) belonged to 54%
- Middle class GNI per capita income 7000-27000 (tk) belonged to 30%
- Middle class GNI per capita income >27000 (tk) belonged to 16%

Occupation of study population

Profession	Number of patients	percentage(%)
Housewife	28	28
Business	22	22
Worker	18	18
Service holder	14	14
Farmer	10	10
Retired	6	6
Teacher	2	2
*Majority of patients •28% was housewife •22% was service holder		

Past medical history and predisposing factors



Clinical presentation of unconsciousness

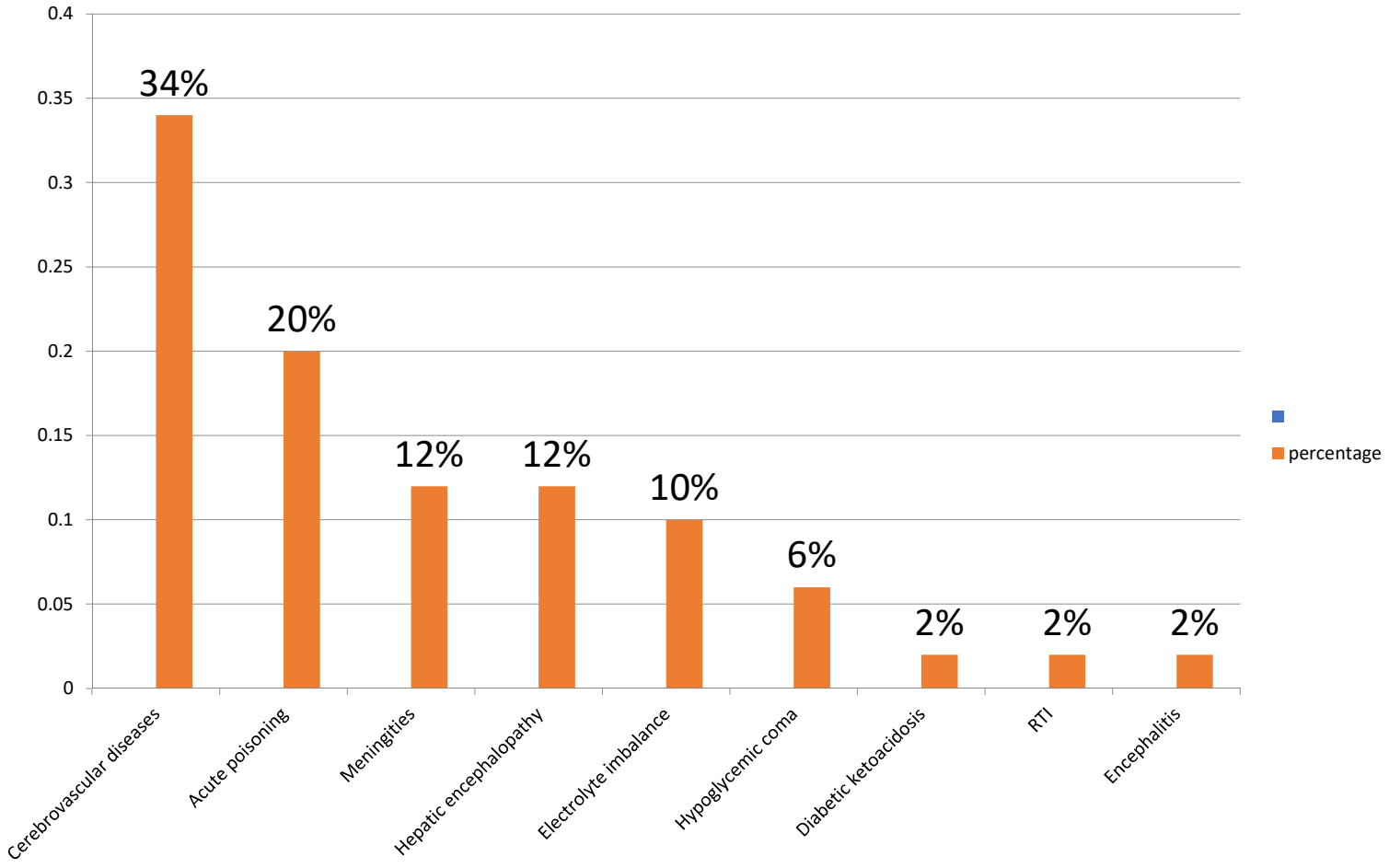
presentation	Number of patients	percentage(%)
Fever	78	78%
Disorientation	64	64%
Slurred speech	48	48%
Sphincter problem	46	46%
Headache	40	40%
Vomiting	38	38%
Haemiplegia	30	30%
Aggressive behaviour	26	26%
Dysphagia	22	22%
Abdominal pain	18	18%
Convulsion	18	18%
Drowsiness	16	16%
Hiccup	8	8%
Aphasia	6	6%
Respiratory distress	4	4%

*78% was fever

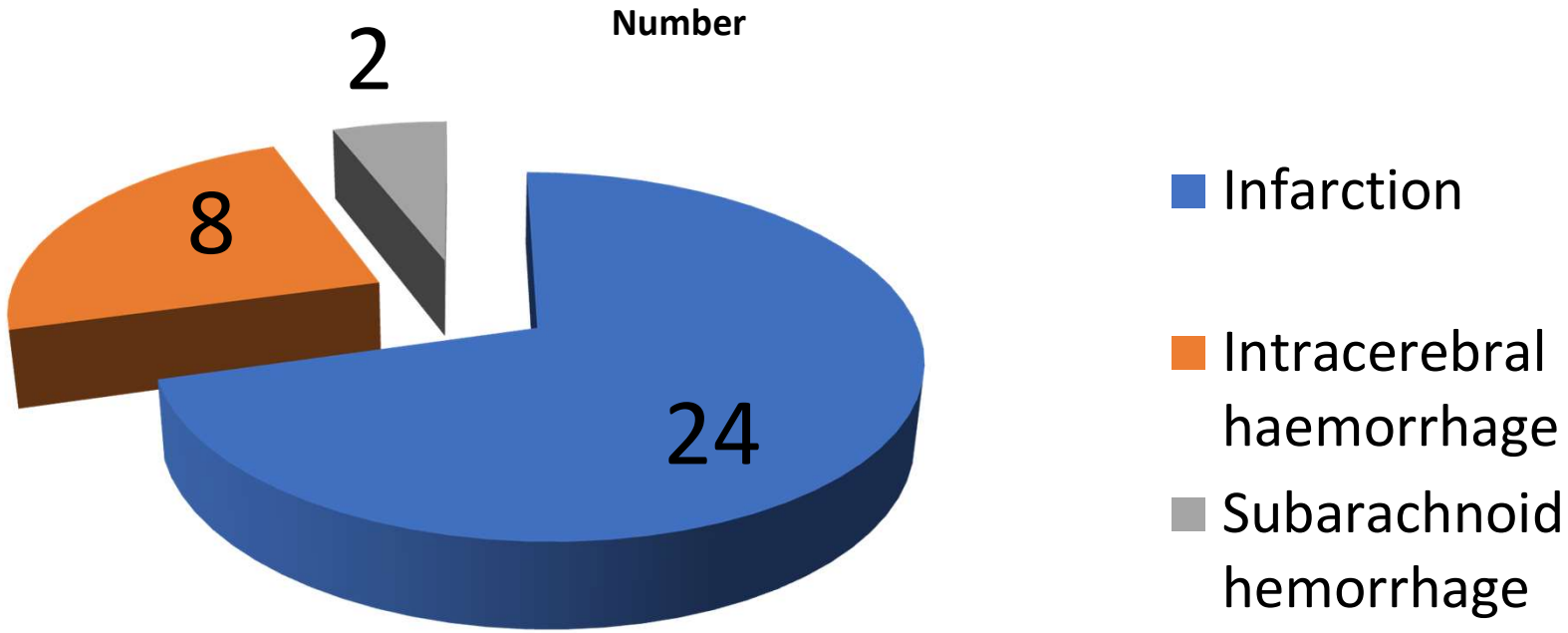
Distribution of patients according to physical signs

Signs	Number of patients	percentage(%)
Tachycardia	**34**	**34%**
Hypertension	**30**	**30%**
Cranial nerve palsy	**22**	**22%**
Planter extensor	**20**	**20%**
Decorticate rigidity	**18**	**18%**
Vomiting	**18**	**18%**
Hypotension	**16**	**16%**
Bradycardia	**16**	**16%**
Papilloedema	**14**	**14%**
Neck rigidity	**12**	**12%**
Decerebrate rigidity	**12**	**12%**
Cyanosis	**6**	**6%**
***34%** comprised of Tachycardia 30 % comprised of Hypertension		

Aetiological distribution of unconscious patients



Pattern of CVD observed in CT scan (n=34)



Limitations

1. The study population was from one selected tertiary level hospital, and had small sample size, so that the results of this study might not be reflected the exact picture of the country.
2. As the study was conducted in a tertiary care hospital which may not represent primary or secondary level health care scenario.
3. Sample were taken by purposive method in which question of personal biasness might arise.

Recommendations

- A history from a relative or carer about the onset and course of the state is essential to help distinguish between acute delirium and dementia.

- To make initiatives for large scale community based study in this regard.

Conclusion

- **Cerebrovascular disease** appears to be the **commonest causes** of acute confusional state.

- Knowing the nature and timing of disease together with the identification of high risk patients, may be useful to strengthen acute medicine.


Thank
you!