

Original article:

Study of etiological factors responsible for non-traumatic coma in geriatric population in western Maharashtra

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Abstract:

Introduction: The patient who appears to be asleep and is at the same time incapable of being aroused by external stimuli or inner need is in a state of coma. With this view present work was planned to study of etiological factors responsible for non-traumatic coma in geriatric population.

Methodology: A total of 50 case were included in my study who presented with non-traumatic coma of more than 6 hours duration. The patients were drawn from general medicine wards, ICU and general out-patient department as well as the Geriatrics OPDs from Dr. D.Y. Patil hospital and research centre.

Results: In our study the commonest etiology of non-traumatic coma was CVA of which ischemic were(30%), hemorrhagic(14%). In case of metabolic causes uremic(14%), hemorrhagic(4%), hypoxic(10%), hepatic(8%).

Conclusion: Common etiologies in males were stroke and common etiologies in female were metabolic causes.

Keywords: stroke, coma

Introduction:

The patient who appears to be asleep and is at the same time incapable of being aroused by external stimuli or inner need is in a state of coma. There are variations in the degree of coma; in its deepest stages, no reaction of any kind is obtainable: corneal, pupillary, pharyngeal, tendon, and plantar reflexes are in abeyance, and tone in the limb muscles is diminished. In still lighter stages, sometimes referred to by the ambiguous and unhelpful terms semicoma or obtundation, most of the above reflexes can be

elicited, and the plantar reflexes may be either flexor or extensor (Babinski sign). These physical signs vary somewhat depending on the cause of coma.¹

Coma in the elderly, as defined, is a medical emergency and treatment. In order to improve the prognosis of coma significantly in the elderly, a better understanding of the etiology and a review is necessary complementary precise, fast, and focused.² With this view present work was planned to study of etiological factors responsible for non-traumatic coma in geriatric population.

Methodology:

A total of 50 case were included in my study who presented with non-traumatic coma of more than 6 hours duration. The patients were drawn from general medicine wards, ICU and general out-patient department as well as the Geriatrics OPDs from Dr. D.Y. Patil hospital and research centre. Detailed history of onset of coma with symptomatology related to coma were taken. (proforma attached). All the patients studied by me were assessed clinically their severity will be graded according to Glasgow coma scale and investigated accordingly . All these cases were neurologically assessed daily and their progress noted down till the time of death in the hospital or discharge.

Inclusion criteria:

- Patients presenting with coma for more than 6 hours,
- Patients above age group of 60 years.

Exclusion criteria:

- Patient below age group of 60 years ,
- Any history of trauma

Statistical analysis:

Analysis was done SPSS (Statistical package for social science) software version II using chi-square , t test , Z value .A p-value less than 0.05 is considered as significant.

Study was started only after the permission of Institute of Ethical Committee and confidentiality was strictly maintained in the study regarding the identity of the patients and the concerned data.

Results:

Table 1: Etiology wise distribution of cases in study group

Etiolo!!V	Male (n=32)	Female (n=18)	Total % (n=50)
Ischemic	10	5	15 (30)
Haemorrhagic	6	1	7 (14)
SAH	1	1	2 (4)
Uremic coma	3	4	7 (14)
Heoatic coma	4	0	4 (8)
Hvooxic	1	4	5 (10)
HONKC	1	0	1 (2)
Metabolic acidosis	1	0	1 (2)
Hvooglvemic coma	1	0	1 (2)
Cerebral malaria	0	1	1 (2)
Seotecemia	1	0	1 (2)
Pyogenic	1	1	2 (4)
Tubercular	0	1	1 (2)
Qrganooosohorous	1	0	1 (2)
GBS	1	0	1 (2)

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Table 2: Association between Etiology and outcome in study group

Etiology	Outcome			Chi-square	PValue
	Good recovery	Severe disability	Death		
	n= 4	n=9	n=37		
CVA				4.07	>0.05
Yes	0	5	19		
No	4	4	18		
Metabolic				4.04	>0.05
Yes	1	1	17		
No	3	8	20		
Others				19.08	<0.001
Yes	3	3	1		
No	1	6	36		

Table 2. shows that of the total 50 geriatric patients 37 patients succumbed to death of which 19(51.3%) patients were due to cerebrovascular accident, 17(45.9%) deaths due to metabolic causes and 1(2.7%) due to other causes. 9 patients had severe disability of which CVA patients with severe disability were 5(55.5%) , metabolic were 1(11.1%) and others were 3(33.3%). In case of good recovery number of patients were 4 of which other causes were 3(75.5%) and metabolic was 1(25%). It indicates that patients with CVA and Metabolic strokes have poor prognosis compared to patients with other causes of stroke. This is statistically significant (P Value is <0.001).

Discussion:

In our study the commonest etiology of non-traumatic coma was CVA of which ischemic were (30%), hemorrhagic (14%). In case of metabolic causes uremic (14%), hemorrhagic (14%), hypoxic (10%), hepatic (10%) .CVA accounted for 44% of total mortality in our study, this was in accordance

to a similar study done by Department of Anesthesia and Intensive Care of Gabriel TOURE Teaching Hospital, Mali the cause for coma in 46% of cases was stroke and 28% cases were of metabolic origin 3.

In another study population of 865 patients had the following eight different coma etiologies: poisoning (n = 329), stroke (n = 213), epilepsy (n = 113), circulatory failure (n = 60), infection (n = 56), metabolic disorder (n = 44), respiratory insufficiency (n = 33), and intracranial malignancy (n = 17).^{4,5}

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causes were 3(75.5%) and metabolic was 1(25%).It indicates that patients with (Table 8) CVA and Metabolic strokes have poor prognosis compared to patients with other causes of stroke .This is statistically significant (**P Value is <0.001**).

Conclusion:

Common etiologies in males were stroke and common etiologies in female were metabolic causes.

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