



ETIOLOGY AND SEMIOLOGY OF POST STROKE SEIZURES

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ABSTRACT

According to existing literature, the incidence of post stroke seizure in India is 13 %. There have been very few studies about post stroke seizures in the India. We did a study to determine the time of occurrence, semiology and impact of comorbid conditions and mortality, in relation to seizure. We found that partial seizures are the commonest post stroke seizures. Early onset seizures are more common than late onset. Seizures are more common with cortical and larger lesions. Late onset seizures are more likely to recur.

KEYWORDS :**INTRODUCTION:**

According to existing literature, the incidence of post stroke seizure in India is 13 %. There have been very few studies about post stroke seizures in the India. We did a study to determine the time of occurrence, semiology and impact of comorbid conditions and mortality, in relation to seizure.

AIM OF THE STUDY:

To study the semiology of post stroke seizures.

To analyse the incidence of seizures in relation to stroke subtype.

To study the time of occurrence of seizure.

To study any relation between anatomical location of infarct and seizure.

Materials and methods:

A total of 50 cases of seizures with stroke were included in this study. Children less than 16 years of age and those with prior seizure disorder were excluded from the study. Venous strokes were also excluded.

Clinical history and examination were recorded in a standardized proforma. Seizure semiology was categorized as per the recommendations of the ILAE as generalized, simple partial, partial with secondary generalization or complex partial seizures, presence of status epilepticus and any recurrence was noted.

Strokes were classified as ischemic and haemorrhagic. Location of cortical infarcts were classified as frontal lesion, parietal lesion, occipital lesion. The depth of a lesion was defined as cortical, subcortical or cortical and subcortical.

The size of the infarct was recorded as more than or less than 5 cm, and bleed volume calculated by the formula $ABC/2$, where A is the greatest diameter, B is the diameter 90 degrees to A and C is the number of slices multiplied by slice thickness.

Results:

Out of patients, there were 38 males and 12 females. The maximum number of patients were from the age group 61 to 70 years, showing that older age group predisposes for post stroke seizures.

AGE	CASES
21-30 YEARS	2
31-40 YEARS	6
41-50 YEARS	9
51-60 YEARS	13
61-70 YEARS	15
71- AND ABOVE	5

TIMING and STROKE SUBTYPE:

Early onset seizures were present in 32 patients and late onset in 18 patients. Out of the 50 patients, 34 had ischemic stroke and 16 had haemorrhage.

SEIZURE SEMIOLOGY:

In this study 31 patients presented with partial seizure, 18 patients with generalized seizure. 1 with status epilepticus.

seizure	no
Partial seizure	31
Generalized	18
Status epilepticus	1

Anatomical characteristics – depth of the lesion:

In the thrombotic group (28), 19 patients had cortical lesion. 6 had both cortical and subcortical, 3 had only subcortical lesion. Of 16 patients with ICH, 9 had only cortical involvement, 5 had only subcortical involvement, 2 had both.

Type of stroke	cortical	subcortical	Cortical+subcortical
ischemic	68%	7%	11%
haemorrhagic	18%	10%	4%
embolic	9%		3%

Size of infarct:

Out of 34 patients with ischemic stroke, 21 had large infarcts. Lesion size correlated with recurrent seizures.

Recurrent seizures:

In this study, seizures occurred in 20. Early onset seizure was associated with seizure recurrence in 7 and late onset seizure in 13 with a p value of 0.00004 which is highly significant. Hence we find that late onset seizures are more likely to recur.

Conclusion:

Partial seizures are the commonest post stroke seizures. Early onset seizures are more common than late onset. Seizures are more common with cortical and larger lesions. Late onset seizures are more likely to recur.

References

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