



## NON TRAUMATIC INTRACRANIAL HAEMORRHAGE PRESENTING WITH SEIZURES.

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### ABSTRACT

Stroke has a significant proportion comprising of intra cranial haemorrhage. Generally such patients present with focal weakness or altered sensorium. Seizures can also be a presenting feature in few of the cases. We present our study done to look for such haemorrhagic stroke patients who present with seizures at onset.

**KEYWORDS :** Intracranial Haemorrhage

### INTRODUCTION :

The incidence of seizures following spontaneous intracerebral hemorrhage (ICH) reportedly ranges from 2.8-18.7%[1]. The other features which give a hint of ICH are headache at onset, focal weakness including hemiparesis or hemiplegia, altered sensorium with features like vomiting. Studies have reported that the factors for provoked seizures following spontaneous ICH are related to ICH volume, frontal location, and cortical involvement[2]. Generally, large sized bleeds are more susceptible to have seizures at onset. Also, cortical location of bleed is an independent risk factor for all such episodes.

### AIMS AND OBJECTIVES:

To study about the incidence of seizures at presentation of the patients presenting with non traumatic supratentorial ICH.

### INCLUSION CRITERIA :

1. Non traumatic patients presenting with seizures in cases proved to have supratentorial ICH on brain imaging.
2. Patients above 20 years of age.

### EXCLUSION CRITERIA :

1. Patients below 20 years of age
2. Patients with ischaemic stroke, infratentorial ICH, traumatic ICH

### MATERIAL AND METHODS :

This was a retrospective observational study done on the patients presenting to outpatient department at a Neurology clinic in India. All patients who were more than 20 years of age and whose brain imaging showed the presence of supratentorial ICH (done after suspicion of stroke) were studied retrospectively. The occurrence of seizures (generalized or focal) were studied in all such cases. Seizure at onset was defined as seizure within 7 days of event. The data was later analyzed.

### RESULTS :

50 patients of ICH were studied here. 31 were males and 19 were females. Most common age of presentation was above 60 years age group. 8(16%) patients presented with seizures at onset [Table 1]. All these were associated with worse outcomes as compared to others. The long term follow-up of these patients will be discussed in the subsequent paper.

**Table 1 : Distribution of seizures according to age**

Age group	Percentage	Seizure at onset
21-30 years (2)	4%	1
31-40 years (4)	8%	-
41-50 years (6)	12%	1
51-60 years (10)	20%	2
Above 60 years (28)	56%	4

### DISCUSSION:

Early seizures are defined as seizures occurring within 7-14

days post-acute stroke and those occurring after this window as late[3]. Stroke pathologies are the leading cause of symptomatic epilepsy with registry data suggesting an incidence of at least 5%. Furthermore, seizures occur more commonly in acute intracerebral haemorrhage (ICH) than acute ischaemic stroke[4]. Seizures have been identified as the presenting feature in up to 30% of ICH patients[5]. Therefore, seizure at onset are a common but fortunately treatable phenomenon. Such seizures should respond well to antiepileptic drugs (AEDs) though recognition and assessment of treatment effectiveness remain the areas of importance. The difficulties in recognition are typified by data highlighting the alarming frequency (8.8%) of nonconvulsive status epilepticus (NCSE) in acute ICH patients and independently associated factors. Hence, all such patients who present with non traumatic supratentorial haemorrhages should be dealt with caution and optimized anti epileptic drugs should be started wherever needed.

### REFERENCES :

1. Arboix A, Garcia-Eroles L, Massons JB, Oliveres M, Comes E: Predictive factors of early seizures for in-hospital mortality in acute cerebrovascular disease. *Neurology* 47 : 1429-1435, 1996.
2. Yang TM, Lin WC, Chang WN, Ho JT, Wang HC, Tsai NW, et al : Predictors and outcome of seizures after spontaneous intracerebral haemorrhage . *Clinical article. J Neurosurg* 111 : 87-93, 2009.
3. Silverman IE, Restrepo L, Mathews GC. Poststroke seizures. *Arch Neurol* . 2002;59:195-201.
4. Bladin CF, Alexandrov AV, Bellavance A, Bornstein N, Chambers B, Cote R, et al. Seizures after stroke: a prospective multicenter study. *Arch Neurol*. 2000;57:1617-1622.
5. Sung CY, Chu NS. Epileptic seizures in intracerebral haemorrhage. *J Neurol Neurosurg Psychiatry*. 1989;52:1273-1276.