

# Suicidality in the epileptic patient presented at a tertiary care centre.

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**Abstract-** People with epilepsy have a higher risk of suicidal ideation and suicidal behaviors than the general population. Some of the studies found increased suicide rates in men with unprovoked seizures and suggested that the risk is increased in patients with temporal lobe epilepsy. Some studies showed that people with epilepsy with temporal lobe resection have a higher mortality rate due to suicide than nonsurgical cases. People who continued to have seizure had a SMR of 7.4 in contrast to those who were seizure-free post-surgery (SMR: 1.7). The risk of suicide is about three times higher among patient with epilepsy than in general population. The Aim & objective of the study was to identify the prevalence suicidality in epileptic patient. A cross-sectional descriptive observational prospective study that used inclusion and exclusion criteria was conducted. 150 patients presented with epilepsy were taken in the study at SMS Hospital, Jaipur from May 2021 to April 2022. In the current study, Majority of subject were not had suicidal ideas (68%) and 32% subjects had suicidal ideas, Suicidal attempt tendency were absent in majority of subjects (88%), while 12% subjects had it. The severity of suicidal tendency as per MINI score was absent in majority of cases (70%) followed by low and moderate tendency in 12% subjects and least were had high tendency. From the present study we concluded that with increasing age of onset suicidality decreases and with increasing duration of illness suicidality decreases in epilepsy patients.

**Index Terms-** Epilepsy, Suicidality, MINI, Age, Duration.

## I. INTRODUCTION

Epilepsy is the most common serious neurological disorder which accounts for an estimated 0.7% of the global burden of disease. It affects about 70 million people worldwide<sup>1</sup>. **Suicidality** : the risk of suicide, usually indicated by suicidal ideation or intent ,especially as evident in the presence of a well elaborated suicidal plan(American Psychological Association). Every year more than 800,000 people die due to suicide [1 person every 40 sec]. It ranks as the second leading cause of death next to traffic accidents among 15-29 years of age<sup>2</sup>. People with epilepsy have a higher risk of suicidal ideation and suicidal behaviors than the general population<sup>3</sup>. Some of the studies found increased suicide rates in men with unprovoked seizures and suggested that the risk is increased in patients with temporal lobe epilepsy. Some studies showed that people with epilepsy with temporal lobe resection have a higher mortality rate due to suicide than nonsurgical cases. People who continued to have seizure had a SMR of 7.4 in contrast to those who were seizure-free post-surgery (SMR: 1.7)<sup>4</sup>. The risk of suicide is about three times higher among patient with epilepsy than in general population<sup>5</sup>.

## II. AIM & OBJECTIVES

Study was conducted to identify the prevalence suicidality in epileptic patients.

## III. MATERIALS & METHOD

A Cross – Sectional Observational study was conducted on epilepsy patients at Neurology OPD, SMS Hospital Jaipur from 1<sup>st</sup> May 2021 to 30<sup>th</sup> April 2022 on 150 subjects diagnosed with epilepsy taking drugs for at least last 3 months and above 18 years of age.. We excluded subject having seizure episode within 72 hour. Proforma were filled and for assessment GHQ – 12 Questionnaire and MINI 7.0.2 scale was used. The ethical approval was from the institutional ethical committee and funding was self-generated with no conflict of interest.

## IV. OBSERVATION & RESULTS

This study was conducted on 150 epileptic patients visiting OPD/Indoor of department of psychiatry in association with department of neurology of SMS Medical College, Jaipur. Their risk of suicidalities was assessed.

**TABLE 1 SHOWING SUICIDAL IDEATION WISE DISTRIBUTION OF SUBJECT**

SUICIDAL IDEATION	NO OF SUBJECT	PERCENTAGE
ABSENT	102	68
PRESENT	48	32
TOTAL	150	100

Majority of subject were not had suicidal ideas (68%) and 32% subjects had suicidal ideas,

**TABLE 2 SHOWING SUICIDAL ATTEMPT WISE DISTRIBUTION OF SUBJECT**

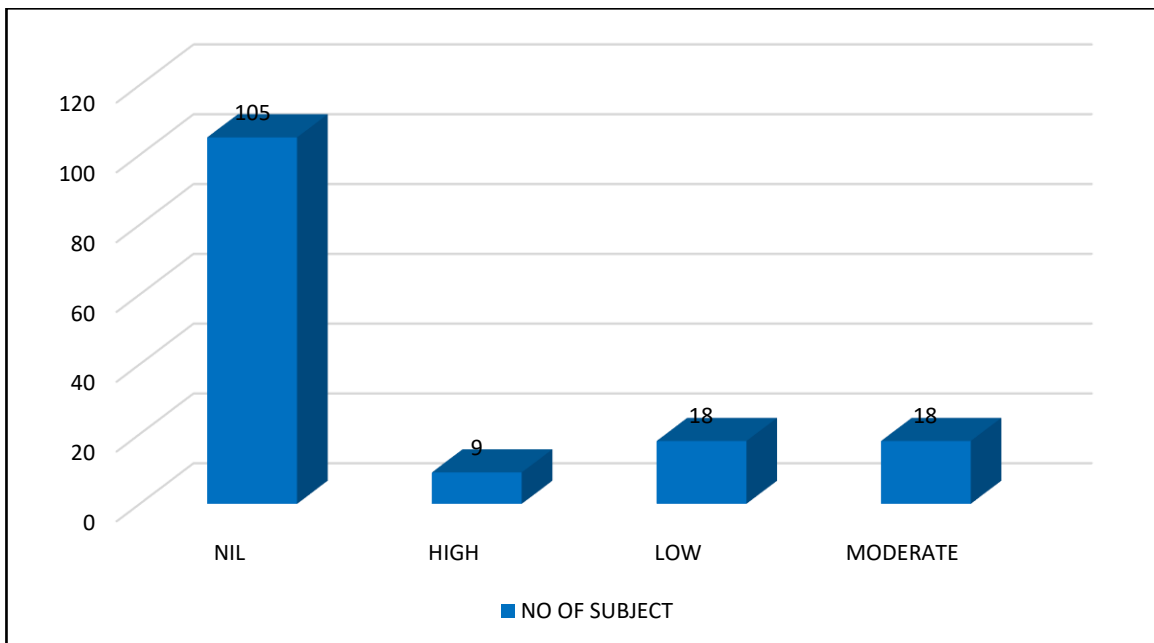
SUICIDAL ATTEMPT	NO OF SUBJECT	PERCENTAGE
ABSENT	132	88
PRESENT	18	12
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Suicidal attempt tendency were absent in majority of subjects (88%), while 12% subjects had it.

**TABLE 3 SHOWING MINI 7.0.2 WISE DISTRIBUTION OF SUBJECT**

MINI 7.0.2	NO OF SUBJECT	PERCENTAGE
NIL	105	70
HIGH	9	6
LOW	18	12
MODERATE	18	12
<b>TOTAL</b>	<b>150</b>	<b>100</b>

The severity of suicidal tendency as per MINI score was absent in majority of cases (70%) followed by low and moderate tendency in 12% subjects and least were had high tendency.



**FIGURE 1 SHOWING MINI 7.0.2 WISE DISTRIBUTION OF SUBJECT**

**TABLE 4 SHOWING SUCIDIALITY WITH AGE OF ONSET**

AGE OF ONSET	NIL	LOW	MODERATE	HIGH	TOTAL
0-10 YEARS	48	9	15	6	78
11-20 YEARS	24	9	0	0	33
21-30 YEARS	9	9	3	3	15
31-40 YEARS	3	0	0	0	3
41-50 YEARS	18	0	0	0	18
>50 YEARS	3	0	0	0	3

In current study

Patient having age of onset ranging from 0 – 10 years suicidality was not present in majority of patients 48, followed by 15 patients having moderate suicidality, 9 patients having low suicidality and 6 patients have high suicidality.

Patients having age of onset ranging from 11 – 20 Years suicidality was not present in majority of patients 24, followed by 9 patients having low suicidality.

Patients having age of onset ranging from 21 – 30 Years suicidality was not present and low in 9 patient’s each, followed by 3 – 3 patients having Moderate and High Suicidality.

Patients having age of onset ranging from 31 – 40 years suicidality was not present in all 3 patients.

Patients having age of onset ranging from 41 – 50 years suicidality was not present in all 18 patients.

Patients having age of onset > 50 years suicidality was not present in all 3 patients.

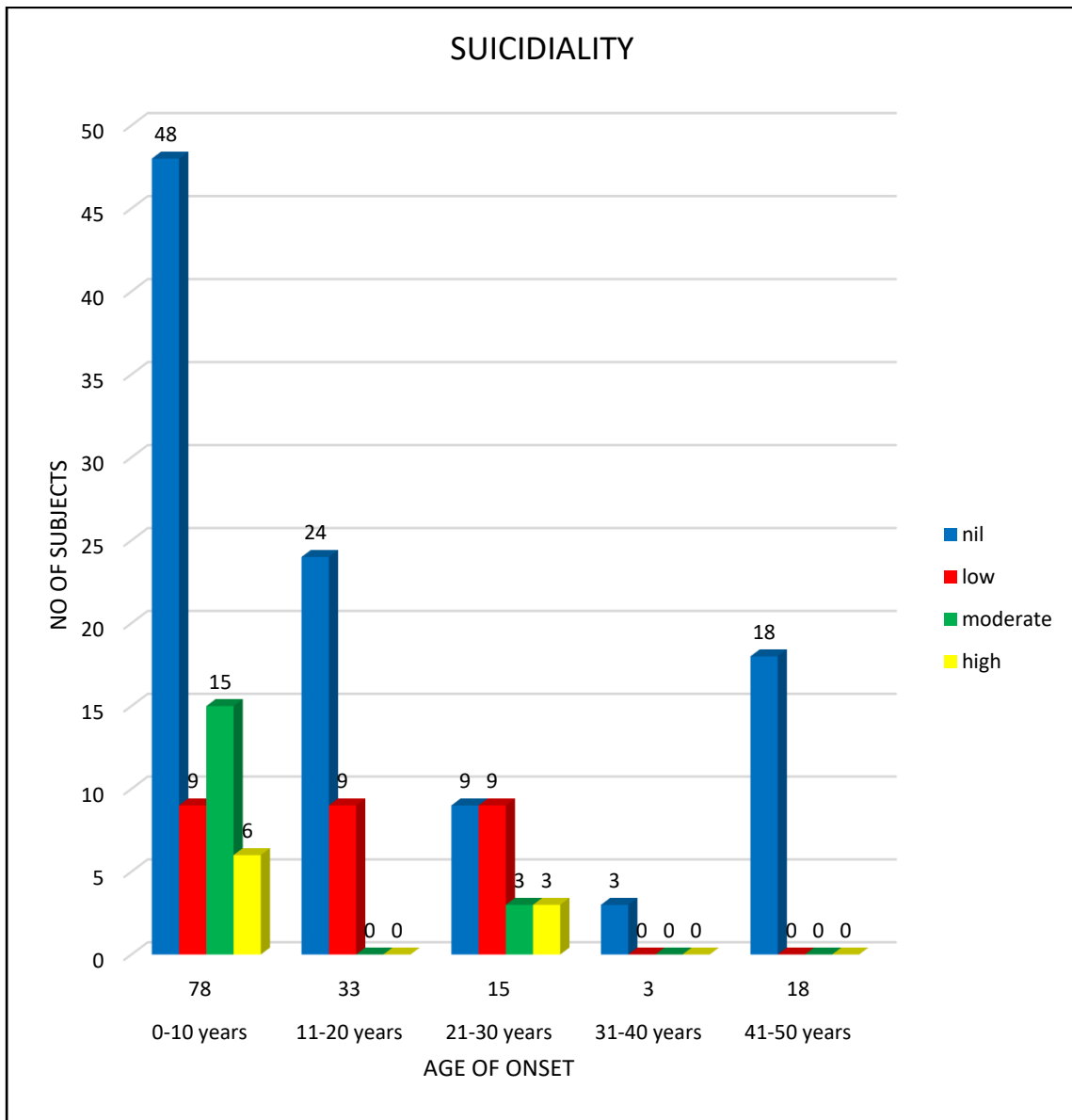


FIGURE 2 SHOWING SUICIDIALITY WITH AGE OF ONSET

TABLE 5 SHOWING SUICIDIALITY WITH DURATION OF ILLNESS

DURATION OF ILLNESS	NIL	LOW	MODERATE	HIGH	TOTAL
0-10 YEARS	45	0	3	3	51
11-20 YEARS	39	9	12	0	60
21-30 YEARS	15	9	3	6	33
31-40 YEARS	6	0	0	0	6

In present study

Patient having duration of illness in range of 0 – 10 years having suicidality absent in majority of patients 45, followed by moderate and high suicidality in 3 – 3 patients each.

Patients having duration of illness in range of 11 – 20 years having suicidality absent in majority of patients 39, followed by moderate suicidality in 12 patients and low suicidality in 9 patients.

Patients having duration of illness range of 21 – 30 years having suicidality absent in majority of patients 15, followed by low suicidality in 9 patients, high suicidality in 6 patients and moderate suicidality in 3 patients. Patient having duration of illness ranging from 31 -40 years suicidality was absent in all 6 patients.

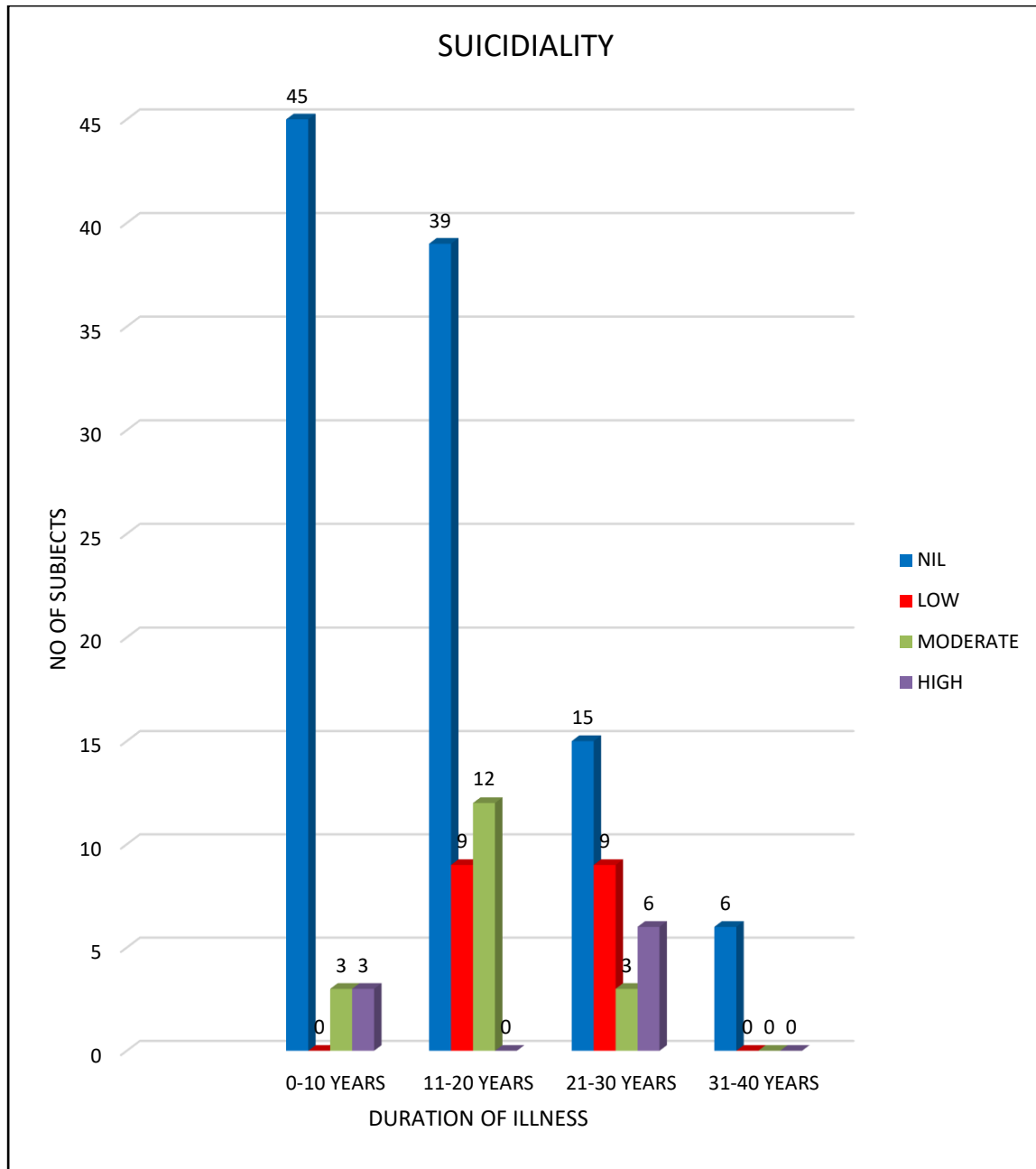


FIGURE 3 SHOWING SUICIDIALITY WITH DURATION OF ILLNESS

V. DISCUSSION

This study was conducted on 150 epileptic patients visiting OPD Department of Neurology of SMS Medical College, Jaipur. Their risk of suicidalities was assessed. Several studies were already conducted in different part of world, some are discussed in this discussion.%. The present study was conducted on 150 epileptic patient which was comparable to the study of Hecimovic I, et al (2011)<sup>6</sup>(193 patients); Seo JG, et al. (2014)<sup>7</sup>(200 patients) and was higher as compare to Wigg CM, et al. (2014)<sup>8</sup>(100 patients); Dabla S, et al. (2020)<sup>9</sup>(100 patients) and was lower than study of Bosak M, et al. (2016)<sup>10</sup>(301 patients); Fazel S, et al. (2013)<sup>11</sup>(285 patients). Majority of subject were not had suicidal ideas (68%) and 32% subjects had suicidal ideas, Suicidal attempt tendency were absent in majority of subjects (88%), while 12% subjects had it. The severity of suicidal tendency as per MINI score was absent in majority of cases (70%) followed by low and moderate tendency in 12% subjects and least were had high tendency. The suicidal ideation was present in 45 patients (30 %) in our study which was similar to study of Fazel S, et al. (2013)<sup>11</sup>(30.4 %) lower as compare to study of Dabla S, et al. (2020)<sup>9</sup>(42 %) and was higher as compare to study of Bosak M, et al. (2016)<sup>10</sup>(10 %); Wigg CM, et al. (2014)<sup>8</sup>(13.3 %).

## VI. CONCLUSION

From present study we concluded that with increasing age of onset suicidality decreases and with increasing duration of illness suicidality decreases in epilepsy patients.

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