**Original article:**

**Demographic profile of writer’s cramp patient from Bangladesh and its effect on job continuation**

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**Abstract**

**Introduction:** writer`s cramp is a task specific focal dystonia involving the hand while writing.

**Objective:** To present demographic profile of writer’s cramp patients and its effect on job continuation.

 **Methods:** It was a cross sectional descriptive study conducted in the department of Neurology, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh from May 2012 to April 2013 and 47 writer`s cramp patients were diagnosed and included in the study.

**Observations and results:** Among 47 patients, 46 were male and one female and all of them were right handed. Average age of the patients was 35.4 years. Duration of illness was restricted for 1-2 years in majority of our subject. Majority of our subjects were service holders (63.82%). Most of our subjects wrote 1-2 hours a day (31.91%). Most of the patients (68.08%) facing problem to continue job, 3 patients (6.38%) had to leave job due to writer’s cramp.

**Conclusions:** Writer’s cramp causing problem to continue job.

**Keywords**: Writer`s Cramp.

**Introduction:**

 Writer’s Cramp (WC) is a task-specific movement disorder that manifests itself as abnormal postures and unwanted muscle spasms that interfere with motor performance while writing1.It is a focal dystonia that typically affects the hand which is involved in writing2. It is a disease of late adulthood, typical age of onset between the ages of 30 and 50 years1. As WC is linked to a speciﬁc task, that is to writing, so writing characteristics, handedness can be affected and might lead to negative impact on job performance hence continuation. This study aims at assessing the demographic profile of writer`s cramp patient of Bangladesh and its effect on job continuation.

**Aims and Objectives:**

To present demographic profile of writer’s cramp patient and its effect on job continuation.

**Methods:**

It was a cross sectional descriptive study conducted in the department of Neurology, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh from May 2012 to April 2013. 47 writer’s cramp patients were included in this study who complained of difficulty during writing. Writer’s cramp was diagnosed by neurologist who is involved with movement disorder clinic for several years. Initially 50 cases were enrolled. Among them one case was diagnosed as Parkinson’s disease and two cases were diagnosed as writer’s tremor. Finally 47 cases were diagnosed as writer’s cramp.

**Observation and Results:**

Among 47 patients, 46 were male and one female. All of our patients were right handed. Average age of the patients was 35.4 years. Minimum age of the patients was 16 and maximum age was 65 years. 32 patients were between the age of 21 to 40 years. Majority of our patients, 29 out of 47(61.70%) lived in Urban areas. Higher level of education was observed among writer`s cramp patients. Almost half of study population completed Bachelor, 16 out of 47 (34.04%) or Masters Degree, 11 out of 47(23.40%) and only 2 of them did not complete school properly. 32 patients were service holder, 9 patients were student and 6 patients were businessman. Duration of illness was restricted for 1-2 years in majority of our subject, while 13 (27.65%) of them suffered more than 5 years. Average duration of illness in our patients were 3.04(± SD 2.16) years. Most of our subjects wrote 1-2 hours a day (31.91%) and 4 (8.51%) patients wrote 5-6 hours a day. 32 (68.08%) of our subject faced problem in continuing their respective jobs, 3 (6.38%) was dismissed from their job because of writer`s cramp affecting their job performance. 12 (25.53%) had no problem in performing their jobs.

**Table 1:** Distribution of patient according to gender

|  |  |
| --- | --- |
| Gender | No. of patient |
| Male | 46(97.87%) |
| Female | 01(2.12%) |
| Total | 47 |

**Table 2:** Age distribution of patients

|  |  |
| --- | --- |
| Age(in years) | No. of patients |
| 0-10 | 0 |
| 10 - 20 | 3 |
| 20 - 30 | 15 |
| 30 – 40 | 17 |
| 40 - 50 | 7 |
| 50 - 60 | 4 |
| 60 - 70 | 1 |
| Total | 47 |

**Table 3:** Place of residence

|  |  |
| --- | --- |
| Habitant | No. of patients |
| Urban | 29(61.70%) |
| Rural | 18(38.29%) |
| Total | 47 |

**Table 4:** Educational qualification

|  |  |
| --- | --- |
| Education level | No. of patient |
| Below SSC/ Class 10 | 2(4.25%) |
| SSC/Class 10 | 8(17.02%) |
| HSC/ class 12 | 10(21.27%) |
| Bachelor | 16(34.04%) |
| Masters | 11(23.40%) |
| Total | 47 |

**Table 5:** Duration of disease (mean 3.04± SD 2.16)

|  |  |
| --- | --- |
| Duration of disease ( in year/s ) | No. of patients |
| < 1  | 11(23.40%) |
| 1 – 2 | 12(25.53) |
| 2 - 3  | 4(8.51%) |
| 3 - 4 | 2(4.25%) |
| 4 - 5 | 5(10.63%) |
| > 5 | 13(27.65%) |
| Total | 47 |

**Table 6:** Occupation of patients

|  |  |
| --- | --- |
| Occupation of patients | No. of patients |
| Service  | 30(63.82%) |
| Student | 9(19.14%) |
| Businessman | 6(12.76%) |
| Retired | 2(4.25%) |
| Total | 47 |

**Table 7:** Duration of daily writing (mean 2.15 ±SD 1.544)

|  |  |
| --- | --- |
| Duration of daily writing ( in hour) | No. of patients |
| Less than 1 hour | 13(27.65%) |
| 1-2 hour | 15(31.91%) |
| 2-3 hour | 8(17.02%) |
| 3 – 4 hour | 4(8.51%) |
| 4 – 5 hour | 3(6.38%) |
| >5 hour | 4(8.51%) |
| Total | 47 |

**Table 8:** Effect of disease on job

|  |  |
| --- | --- |
| Type of problem in job | No. of patients |
| Facing problem in job continuation | 32(68.08%) |
| Dismissed from job | 3(6.38%) |
| No problem to continue job | 12(25.53%) |
| Total | 47 |

**Discussion**

In this cross sectional study we investigated demographic profile of writer`s cramp patients and its effect on job continuation. Among 47 of our subject only 1 was female (2.12%). Among focal dystonias, writer`s cramp was more seen in male compared to female with Male: Female ratio of 1.5:12. Average age of our subject were 35.4 years which is consistent with other studies3. Almost 2/3 of our subjects (61.70%) lived in urban areas. Similar demographic characteristic cannot be found in other studies. Among our 47 subjects 34.04% completed Bachelor and 23.40% completed their master studies. Similar findings were observed in a study conducted in Brazil4. Average duration of illness in our patients were 3.04 years and highest number of patients, that is 13 out of 47 patients (27.65%) suffered more than 5 years. Similar observations were seen in an European study5. 30 of 47 patients were service holder and 9 were students. None of them were musician/ instrument players. Most of our patients wrote 1-2 hours a day (31.91%) and 4 (8.51%) patients wrote 5-6 hours a day. 32 (68.08%) of our subject faced problem in continuing their respective jobs, 3 (6.38%) was dismissed from their job because of writer`s cramp affecting their job performance. 12 (25.53%) had no problem in performing their jobs.

**Conclusion**

Writer`s cramp is a task specific focal dystonia. This condition affects the muscles of hand only while writing. Both diagnosis and management of WC if challenging hence it has negative impact on job performance and continuation.

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Ethics Committee Approval obtained for this study? YES

Was informed consent obtained from the subjects involved in the study?  YES

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