

A Multidisciplinary Rehabilitation Approach for Writer's Cramp: A Case Study

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Abstract

A 61 year-old male was referred from neurology to PMR department RML hospital, New Delhi, with difficulty in writing for 2 years prior to consultation. Initially difficulty in writing which is accompanied with pain after prolonged writing. Also he noticed tremor and stiffness while writing. Disability progressed and he was unable to write even a few words legibly and cannot hold object (spoon) which leads to anxiety and dependency.

When the patient was examined at PMR OPD, EMG/NCV study was advised, which showed normal sensory and motor nerve functions.

The present treatment involved the use of a multidisciplinary therapeutic approach with Physical Medicine and Rehabilitation Specialist, Clinical psychologist and Occupational Therapist which gave us satisfactory results within 6-8 months. The findings in this case is very encouraging and studies with large sample sizes can be considered for further conclusive evidence on the treatment of writer's cramp.

Keywords: Writer's cramp, multidisciplinary approach.

Introduction:

Writer's cramp is classified as an occupational neurosis and is one of a large group of functional motor disorders. Writer's cramp is characterised by muscular spasm of the fingers and hand of the writing arm, often spreading to the muscles of the lower and upper arm and to the shoulder girdle with consequent inco-ordination and discomfort, variously described as fatigue, weakness, stiffness or pain, when attempting to write. Accompanying tremor and jerking of the limb while writing. The pen is then grasped more and more

tightly and the hand writing becomes progressively more illegible up to a stage when writing may become impossible.

Epidemiology: It is more common in males and appears most often in the third and the fourth decade. Those involved in constant writing typing and key board telegraphy have higher incidence. In Australian study: prevalence of 14% for writer's cramp in a group of 516 male telegraphists¹. In an Indian study Mahendru *et al*² (1981) have reported a prevalence of 5.4 per thousand among office workers.

Case Report:

Case: A 51 years old male patient referred from neurology department to PMR department of Dr. RML Hospital who was clinically normal except difficulty in writing for 2 years prior to consultation. Initially he had difficulty in writing which is accompanied with pain after prolonged writing, also he noticed tremor and stiffness while writing. Disability progressed and he was unable to write even a few words legibly and could not hold objects (spoon) which leads to anxiety and dependency. There is no history of similar episode in the past. Family history and drug history is not significant. No H/O of HTN, DM, CVA, AVM Basal ganglia or cortical tumour. EMG/NCV study was advised, which showed normal sensory and motor nerve functions.

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From the desk of

Wizender Rohray called him the greatest sponsor India has after Sunil Gavaskar and while the jury is out on it, there is no denying that Gauteem Gauribit made consistency + features of his batting.

Recently though, there have been a few niggles which might have contributed to some technical glitches as well, leading to a slow string of poor scores, which has obviously touched the ground for former in Gauteem.

The Delhi left-hander is now at the National Cricket Academy in Bangalore not to just prove his fitness but also his technical technique.

T.B. Gauribit
27-10-2010

Fig 3- 3rd Month of Treatment

5-12-2010

From the desk of

An ecstatic Gauteem Gauribit said after Saturday's game that he never realized he enjoyed leading the side so much. And though he denied the captaincy had anything to do with his current form, he once again displayed comprehensive leadership skills and led from the front with another match-winning century as India notched up an unassailable 3-0 lead in the series against New Zealand - Gauribit scores only the eighth ODI captain to score back to back centuries as India scored a convincing 9 wicket win in the third ODI at Ranebennur stadium in Vaddesara on Saturday. The end result was a picture of complete contrast with the side of back as India surpassed New Zealand's total with more than 10 over to spare and Kohli, who remained unbeaten on 63, too was impressive, and finished the proceedings with a huge six over mid-air.

T.B. Gauribit
5-12-2010

Fig 4- 5th Month of Treatment



Fig 5: Writer's Cramp



Fig 6: Writer's Cramp

Discussion:

The main purpose of this paper is to say that in our treatment plan [the combined approach of i) relaxation exercises ii) desensitization and iii) retraining exercises] usually followed in our department is very useful patients presenting with writer's cramp (traditionally known to

be refractory to several therapeutic approaches) as the duration of treatment is less and no recurrence has been found.. No attempt was made to separate the treatment components. Nor is any attempt made to make a comparative evaluation of this treatment plan.

Several treatment modalities have been tried by various

workers. The view that radicular irritation of cervical spine leads to treatments like galvanic and faradic stimulation, electrified pens, cortisone, ultrasonic therapy and cervical traction. But these treatments were of no significant benefit. Some neurologists, viewing the disturbance as being related to extrapyramidal disorders, have used antiparkinsonism drug, with poor success. Some psychiatrists viewed it as a hysterical symptom while others viewed it as an obsessive neurosis. Sedation, hypnosis and psychodrama were tried unsuccessfully.

A psychosomatic formulation states that the act of writing is a refined and delicate motor skill, incompatible with grosser postures of the upper limb, associated with emotional states like anger. When such a state affects a person chronically or arises specifically in relation to the act of writing, it may progressively distort the writing as the person makes a succession of attempts to overcome the difficulty. Crisp and Moldofsky⁵ reported the usefulness of relaxation and re-educative techniques along with psychotherapy in the treatment of writer's cramps. Janet *et al*⁶ 1925 was advocating a complex programme of exercises to strengthen the extensor of the hand followed by teaching the patient to write with the hand supinated to encourage activity of the extensor muscles and to discourage excessive flexion of the digits. Then, to redevelop accurate writing movements of the hand, such shaping devices as special keyboards and pigeonholes were introduced.

More recently relaxation has been advocated in the treatment of the condition⁷ and in one study⁵ it was used in conjunction with a programme in which the individual

was taught to write again, using in the first instance a pen with a wide, soft, felt nib for the drawing of simple shapes and progressing to adult script with a normal pen. While general muscular skeletal relaxation⁸ was the aim, particular emphasis in this respect was placed on the upper limbs.

Conclusion:

It's a fascinating condition. Recent findings have been useful in suggesting new therapeutic approaches to the disorder. Present case study demonstrate that writer cramp can be treated using a multidisciplinary approach. Finding in this case is very encouraging and study with large sample size is being done for further conclusive evidence on the treatment of writer's cramp.

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