

A Study on Pain and Disability Assessment in Migraine Patients

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Abstract

Migraine exerts a tremendous toll on the quality of life of affected individuals, their families, and society as a whole. Migraine is associated with considerable disability that undermines normal function and results in reduced productivity. The individual's burden of disease can be measured in terms of pain by using various scales to find out the effect of drug therapy. The study Protocol was approved by Institutional Review Board of Kovai Medical Center and Hospital, Coimbatore. Patients were asked to fill the questionnaires of McGill pain assessment scale-short form and Migraine disability assessment scale before and after drug therapy. McGill pain assessment score shows significant difference between before and after the medication in their pain at 1% level ($p < 0.01$). Migraine disability level was compared with before and after medication within the study group by Migraine disability assessment scale (MIDAS). There was a highly significant difference between before and after medication in their disability level at 1% level of significance ($p < 0.01$). Use of the MIDAS is a potentially useful tool enabling headache sufferers to realize the extent of burden of migraine, may improve physician-patient communication about headache-related disability and favorably influence health-care delivery for migraine patients.

Key words: Migraine, quality of life, pain and disability

INTRODUCTION

Migraine exerts a tremendous toll on the quality of life of affected individuals, their families, and society as a whole. Migraine is associated with considerable disability that undermines normal function and results in reduced productivity¹. Pain, associated symptoms and restriction of activity pose personal burdens. Increased awareness of the impact of migraine-in terms of reduced functional status, productivity, and quality of life-is essential for migraine diagnosis and treatment². Migraine accounts for about 90% of the total workdays lost by the individual³. The main objectives are assessing the pain and disability before and first visit after 3 months of drug therapy. To identify patients with high treatment needs and to provide a rational basis for treatment decisions. The migraine disability assessment (MIDAS) questionnaire assesses headache-related disability and to motivate disabled migraine sufferers to seek medical care. The individuals burden of disease can be measured in terms of pain by using various scales to find out the effect of drug therapy.

MATERIALS AND METHODS

A Prospective-Cross sectional study was conducted in a multispecialty hospital to assess the intensity of pain and

disability in migraine patients before and after the drug therapy. Further, the physician patient communication about headache-related disability with Migraine disability assessment scale (MIDAS) gives information to the physician. MIDAS consists of five questions that assess time lost in days due to headache in three domains covering the previous 3-month period. The McGill Pain Questionnaire-Short form of the scale consisting of 15 adjectives that represent sensory and affective dimensions of pain, each rated from 0 (none) to 3 (severe), that has been already developed was used. The study was carried out for the period of six months and all the patients who were newly diagnosed with migraine in the neurology department aged between 18-65 years were included. The study Protocol was approved by Institutional Review Board of Kovai Medical Center and Hospital, Coimbatore. Patients were asked to fill the questionnaires of McGill pain assessment scale-short form and Migraine disability assessment scale before and first visit after 3 months of drug therapy. Paired 't' test was used to analyze difference between the short form of McGill Pain Assessment Scale and Migraine Disability Assessment Scale.

RESULTS

A total of 783 patients visited the neurology outpatient department, out of which 165 patients were newly diagnosed as migraine patients. The study was explained and the questionnaires of both pain and disability were distributed to all 165 patients during first visit ie before starting their medication. Among 165 patients, 45 did not come for their first review after 3 months. A total of 120 patients were included in the study. Among these 120 subjects, 82 were women and 38 were men. The data of non-compliant patients were excluded from the study. The McGill pain measurement scale shows that 101 subjects (84.16%) scored 0-15 (mild) during first review after 3 months; 41 subjects (34.16%) had the same

score before medication. Similarly, 15 subjects (12.5%) were scored 16-30 (moderate) during their first review; 58.33% of respondents had the same score before medication; subjects scored 31-40 (Severe) first review; 9 subjects in the same score before medication. (Fig.1) Grade III (Moderate) 31.66% were before medication and 11.66% in first review 16.66% were before medication and 7.5% were after medication in grade IV (Severe). This result shows, that the scores of first review significantly decreased compared to before medication score. Obviously, pain and disability after the medication was improved. (Fig.2)

Figure 1. McGill Pain Assessment Scores of Before and After Medication

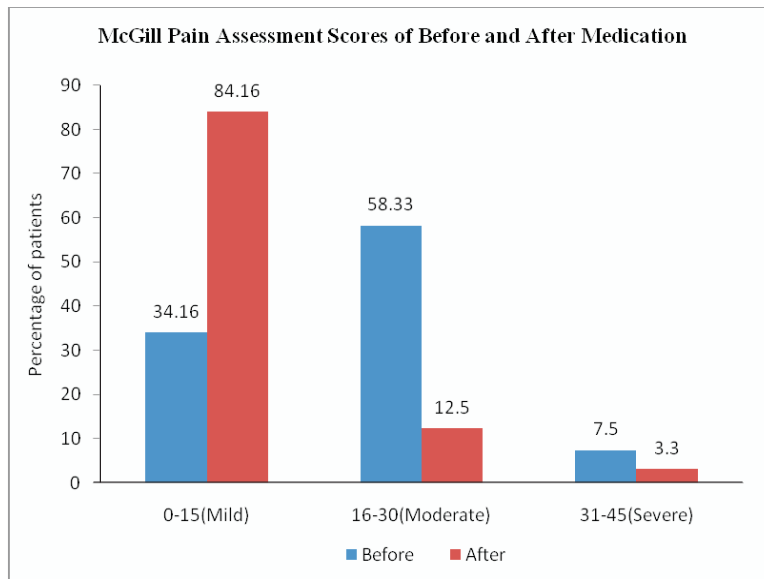
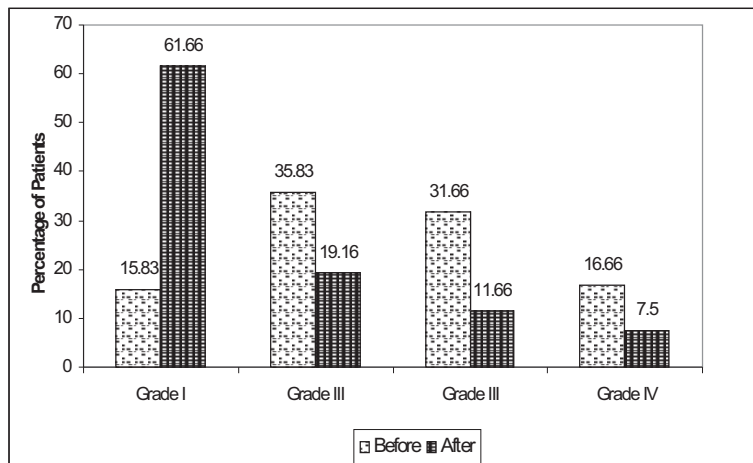


Figure 2. MIDAS Scores of Before and After Medication



DISCUSSION

McGill pain assessment score shows significant difference between before and first review after 3 months of the medication in their pain at 1% level. Migraine disability level was compared with before and after first review within the study group by Migraine disability assessment scale. There was a highly significant difference between before and after first review in their disability level at 1% level of significance. The reliability of MIDAS as assessed by using cronbach α , a measure of internal consistency was found to be 0.74. Further, it confirms previous studies carried out by W.F. Stewart⁴ and Otsuka N et al⁵. Previous studies stated that the Migraine questionnaire was found to be a valid and reliable instrument for migraine headaches. Its operating system suggests that it could significantly improve migraine recognition in primary care⁶. Regelio. Leira et.al. found substantial migraine -related impairment of productivity at work and school as well as of family and leisure time among young women⁷. The Migraine Disability Assessment Scale (MIDAS) score provides valuable information about migraine impact and severity that can be obtained from headache frequency, pain features and symptoms⁸.

CONCLUSION

The pain and disability were assessed through McGill Pain assessment questionnaire and MIDAS before medication and it was high. After three months, the same questionnaires were used to assess the treatment given to the subjects and it was found to be low after the medication. Quality improvement programme like patient counselling and individual patient care may improve patient compliance in migraine which leads to better therapeutic efficacy.

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