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Original Research

Prevalence of psychiatric illness in trigeminal neuralgia and prognosis of its treatment by psychiatrists or other medical specialities

Abdul Rahman Al-Atram

Associate Professor, Department of Psychiatry, College of Medicine, Majmaah University, Majmaah, Saudi Arabia.

ABSTRACT:

Background: In trigeminal neuralgia (TN) the frequency and severity of pain plus the patients continuous medication at multiple times and its side effects has direct negative impact on quality of life, high prevalence of anxiety disorders, limitations of daily activity due to fear of pain attacks and due to regular daily intake of medication, inconvenience disliking and dependence on daily intake of medication, unfavourable long term response to medication and its severe side effects with time, fear of stimulation of trigger zones. This all leads to subsequent psychiatric disorders. Present study aimed to evaluate psychiatric morbidities in patients with TN under medical treatment with different medical specialities and cross examination by a psychiatrist to rule out if patient with TN is being reviewed and evaluated routinely for any depressive or anxiety disorder by other specialists. **Methods:** Two groups of patients were evaluated and included in this study with total sample size of 147 patients. 47 patients who are known diagnosed cases of TN had responded well to pharmacological treatment with anti-epileptic drugs and non-epileptic drugs form **group A** and are treated by 6 different psychiatrists for TN since 3 years and regular follow-up. Further these patients are evaluated for depressive disorder through case history, clinical examination and psychiatric examination by Hamilton Depression Rating Scale (HAM-D scale). **Group B** has 100 patients undergoing treatment for past 3 years with confirm diagnosis of TN treated by other related medical specialities routinely treating TN are cross examined and evaluated for psychiatric illness and depressive disorder by psychiatrist and are classified into different sub-groups like: 1) Patients responding well to medication with no residual symptoms; 2) Patients responding less with residual symptoms; 3) Patients who have other psychiatric disorders due to TN. **Results:** In group A, the medical management is as follows: 17 patients are on Carbamazepine, 11 patients are on combined Carbamazepine with Gabapentin, 8 patients have Gabapentin with Methylcobalmin, 5 patients are on Oxcarbazepine and other 6 patients have both Carbamazepine and Baclofen. After applying HAM-D scale and routine questionnaire to assess psychiatric illness 25 patients are identified with symptoms of depressive disorder present for more than 8 months with 17 out of these 25 being treated simultaneously for depressive disorder as well. In group B consisting of 100 patients 75 settled with medication are responding well and have less depression while as remaining 25 patients are with residual symptoms and are less responsive. After applying HAM-D scale and routine questionnaire to both these sub-groups of 75 and 25 patients to assess psychiatric illness; among 75 patients 40-42 (56%) have mild depression with 13-18 score, 25-27 (36%) have moderate depression with 18-23 score, and 8-10 (13.33%) have severe depression with >23 score while as among remaining 25 patients, 5-7 (28%) have moderate depression, 9-11 (44%) have severe depression and 8-10 (40%) show very severe bitter form of depression. This overall statistical analysis shows more percentage of severe depression in 25 patients with residual symptoms who are less responsive. The further outcome of these values signifies unresponsiveness, severity of depression, duration of illness in long duration of TN and thus causing symptoms and intensity of depression severe in them. And due to less hope for recovery these patients feel for such a long time, they further get depressed. Upon comparing group A consisting of 47 patients being treated by psychiatrists with group B consisting of 100 patients being treated by other related medical specialities routinely treating TN, it is found that 53.19% patients from group A do have related psychiatric illness mainly depression and anxiety disorder due to TN and 68% of them are being treated for their psychiatric illness by the same psychiatrists simultaneously while as in group B with 100 patients all treated for TN by other related medical specialities routinely treating TN, the overall percentage of mild form of psychiatric illness is 42%, moderate form is 34%, severe form is 21% and very severe better form is 10% suggesting overall percentage of depressive illness is high among group B and none of the patients is being treated for any psychiatric illness simultaneously as compared to group A where overall 36.17% patients are being treated simultaneously for psychiatric illness. **Conclusion:** Recognising the psychological impact due to acute recurrent pain in trigeminal neuralgia is critical. Patients with TN should always being evaluated, consulted and treated by psychiatrists simultaneously along with other concerned specialities as there is higher prevalence of psychiatric co-morbidities as the follow-up proceeds. Reason being increased frequency of acute pain attacks in TN with time, disturbed life style due to apprehension of pain, anxiety, medication to be taken more than 3 times a day for long time span, and patients getting less responsive with time to the same medication.

Key words: trigeminal neuralgia, pharmacological treatment, psychiatric illness.

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Corresponding author: Dr. Abdul Rahman Al-Atram, Associate Professor, Department of Psychiatry, College of Medicine, Majmaah University, Majmaah, Saudi Arabia.

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INTRODUCTION

Trigeminal neuralgia (TN) is an acute severe pain condition defined by International Association for Study of Pain (IASP) as sudden, unilateral, severe, brief, stabbing, lancinating, recurring pain in distribution of one or more branches of 5th cranial nerve.^[1,2] It is also known as tic douloureux, trifacial neuralgia, fothergill's disease, neuralgia epileptiforme.^[3] Incidence of trigeminal neuralgia is **4.3 per 100,000** persons per year. Diagnosis is made most primarily by clinical case history, anamnesis and diagnostic nerve blocking by local anaesthesia. White and Sweet criteria for TN help in clinical diagnosis. Trigger zones in TN which get stimulated by speaking, mild touching, chewing and cold breeze are usually distributed over the course of trigeminal nerve branches most commonly 2nd and 3rd division of nerve.^[4] Psychiatric co-morbidities are depression, anxiety disorder, fear and avoiding stimulation of trigger zones which further affects patient's daily activities and causes sleep disorders is evaluated through Hamilton Depression Rating Scale (HAM-D scale).^[5,6]

MATERIAL AND METHODS

Two groups of patients are included in this study consisting of **47** patient's forming **group A** and **100** patient's forming **group B**. **47** patients who are known diagnosed cases of TN had responded well to pharmacological treatment with anti-epileptic drugs and non-epileptic drugs in **group A** are treated by **6** different psychiatrists for TN since **3** years and regular follow-up. Further these patients are evaluated for depressive disorder through case history, clinical examination and psychiatric examination through Hamilton Depression Rating Scale (HAM-D scale).

Group B with **100** patients undergoing treatment for past **3** years have confirm diagnosis of TN treated by other related medical specialities routinely treating TN are cross examined and evaluated for psychiatric illness and depressive disorder by psychiatrist through HAM-D scale are classified into different sub-groups like:

- (1) Patients responding well to medication with no residual symptoms.
- (2) Patients responding less with residual symptoms.
- (3) Patients who have other psychiatric disorders due to TN.

Inclusion criteria:

- All patients are selected randomly between **50–70** years of age group from both sexes.
- Primary definitive diagnostic methods are applied over the subjects, only known classic / idiopathic cases of "typical" TN are included.
- Patients had chief complaint of acute pain due to TN at the beginning of treatment.

Exclusion criteria:

- Patients with systemic age related diseases.
- Patients who were already being treated for other chronic psychiatric illness and anxiety disorders before the onset of TN.

- Patients who had been under treatment with other specialists earlier.
- Patients who had been treated with neurectomies and alcohol nerve block injections.

Statistical Analysis:

In group A, the medical management is as follows: 17 patients are on Carbamazepine, 11 patients are on combined Carbamazepine with Gabapentin, 8 patients have Gabapentin with Methylcobalmin, 5 patients are on Oxcarbazepine and other 6 patients have both Carbamazepine and Baclofen. After applying HAM-D scale and routine questionnaire to assess psychiatric illness 25 patients are identified with symptoms of depressive disorder present for more than 8 months with 17 out of these 25 being treated simultaneously for depressive disorder as well.

In group B consisting of 100 patients 75 settled with medication are responding well and have less depression while as remaining 25 patients are with residual symptoms and are less responsive. After applying HAM-D scale and routine questionnaire to both these sub-groups of 75 and 25 patients to assess psychiatric illness; among 75 patients 40-42 (56%) have mild depression with 13-18 score, 25-27 (36%) have moderate depression with 18-23 score, and 8-10 (13.33%) have severe depression with >23 score while as among remaining 25 patients, 5-7 (28%) have moderate depression, 9-11 (44%) have severe depression and 8-10 (40%) show very severe bitter form of depression. This overall statistical analysis shows more percentage of severe depression in 25 patients with residual symptoms who are less responsive. The further outcome of these values signifies unresponsiveness, severity of depression, duration of illness in long duration of TN and thus causing symptoms and intensity of depression severe in them. And due to less hope for recovery these patients feel for such a long time, they further get depressed.

Upon comparing group A consisting of 47 patients being treated by psychiatrists with group B consisting of 100 patients being treated by other related medical specialities routinely treating TN, it is found that 53.19% patients from group A do have related psychiatric illness mainly depression and anxiety disorder due to TN and 68% of them are being treated for their psychiatric illness by the same psychiatrists simultaneously while as in group B with 100 patients all treated for TN by other related medical specialities routinely treating TN, the overall percentage of mild form of psychiatric illness is 42%, moderate form is 34%, severe form is 21% and very severe better form is 10% suggesting overall percentage of depressive illness is high among group B and none of the patients is being treated for any psychiatric illness simultaneously as compared to group A where overall 36.17% patients are being treated simultaneously for psychiatric illness. The representation of group A patients and their treatment by different psychiatrists for TN and the overall incidence of psychiatric illness is depicted in Figure 1.

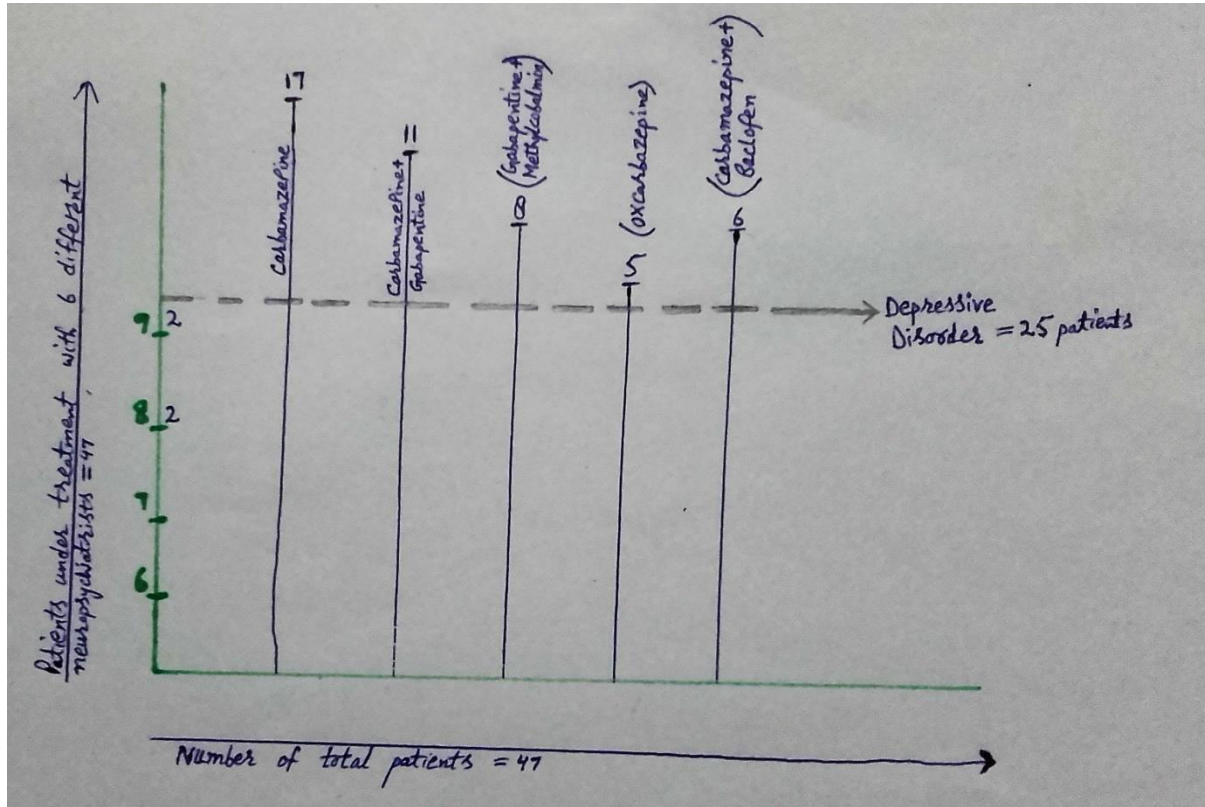


Table 1 represents the overall score with classification of symptoms and percentage of psychiatric illness comparison between **Group A** and **Group B**.

Classification of symptoms	Group A		Group B		Overall number of patients with various depression level present in Group B
	Number of patients	Percentage	Number of patients	Percentage	
Depression			75 Patients	25 Patients	
Mild	9-11	(44%)	40-42 (56%)	Nil	40-42 (42%)
Moderate	12-14	(56%)	25-27 (36%)	5-7 (28%)	30-34 (34%)
Severe	3	(12%)	8-10 (13.3%)	9-11 (44%)	17-21 (21%)
Very Severe/ Worse	Nil	(0%)		8-10 (40%)	8-10 (10%)

It is clear from results that in **group A**, **22 (46.80%)** patients do not present any clinical signs of psychiatric illness as compared to **group B** where mild to very severe level of psychiatric illness is present in almost all the subjects. In **group A**, **3 (12%)** patients present with severe depression as compared to **group B**, **17-21 (21%)** patients have severe depression. In addition to this in **group B**, **8-10 (10%)** patients present with very severe worst form of depression. In **group A** **25 (53.19%)** patients are identified with symptoms of depressive disorder present for more than **8** months and **17 (68%)** patients are being treated simultaneously for depressive disorder as well while as in **group B** none of the patients is being treated for any psychiatric illness. The total sample size in this study is **147** and the overall percentage and total number of patients with any form of depression

is **125**, that is **85.03%** patients with TN have associated psychiatric illness.

DISCUSSION

A common consensus is lacking on how a patient presenting with TN should be evaluated, managed particularly level of psychiatric illness and impact on patients quality of life. Since TN is a chronic disease with intense pain and higher level of suicidal tendency in these patients with time. It is often referred as “suicide disease”.^[7] As it is clear from our study that higher rate of depressive disorders and psychiatric illness is present in patients with TN where slightest stimulus could initiate a trigger zone. It is learned from the results that professional treatment, immediate help and proper evaluation by psychiatrist is mandatory to prevent suicidal tendencies as well as to improve the quality of

life in these patients and simultaneously patients with TN be treated by psychiatrists. This study also indicates TN is a major risk factor for subsequent development of depressive and anxiety disorders. The frequency and severity of pain plus the patients regular medication and its side effects has direct negative impact on quality of life, high prevalence of anxiety disorders, limitations of daily activity due to fear of pain attacks and due to regular daily intake of medication, inconvenience disliking and dependence on daily intake of medication, unfavourable long term response to medication and its severe side effects with time, fear of stimulation of trigger zones. This all leads to development of subsequent psychiatric disorders.^[8] For better treatment of psychiatric co-morbidities in these patients treated by different medical practitioners from different medical specialities, a referral or cross examination by a psychiatrist to rule out any psychiatric illness should be performed to assess the prevalence and severity of depression in these patients. Other risk factors for developing subsequent psychiatric disorders could also be evaluated which include quality of life, anxiety, limitations on daily activity due to fear of pain evoked by stimulation of trigger zones, inconvenience, disliking and dependence on daily intake of medicine, constant intermittent pain episodes in longstanding cases which further leads to disruption of activities in daily life along with socio-occupational dysfunction.

CONCLUSION

To the best of my knowledge there is no much published literature available about depressive disorder present in patients suffering from TN treated by pharmacological means who become predictors of depressive disorder and anxiety disorder. The total sample size in this study is **147** and the overall percentage and total number of patients with any form of depression is **125**, that is **85.03%** patients with TN have associated psychiatric illness which is highly significant value. Hence it must be emphasized from this study that a patient with TN needs proper psychiatric evaluation and follow-up. Recognising the psychological impact due to acute recurrent pain in trigeminal neuralgia is critical. Patients with TN should always being evaluated, consulted and treated by psychiatrists simultaneously along with other concerned specialities as there is higher prevalence of psychiatric co-morbidities as the follow-up proceeds. Reason being increased frequency of acute pain attacks in TN with time, disturbed life style due to apprehension of pain, anxiety, medication to be taken more than **3** times a day for long time span, and patients getting less responsive with time to the same medication.

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