CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

SJIF Impact Factor: 7.187

http://doi.org/10.5281/zenodo.4436061

Avalable online at: http://www.iajps.com *Research Article*

PREVALENCE OF NEUROPATHIC PAIN AMONG PATIENTS PRESENTING IN OUTDOOR DEPARTMENT

DR. JAVERIA YOUSAF[1], DR. SHEHRYAR ASIF MALIK[2], DR. SAMINA JAMEEL[3]

Article Received: November 2020 **Accepted:** December 2020 **Published:** January 2021

Abstract:

Neuropathic pain is pain caused by damage or disease affecting the somatosensory nervous system. Neuropathic pain may be associated with abnormal sensations called dysesthesia or pain from normally non-painful stimuli (allodynia). This cross-sectional study was conducted among the patients presenting in outdoor department of different hospitals. Name, age, gender, history of disease and disease duration were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. There were 160 patients included in this study i.e., 80 males (50%) and 80 females (50%). The mean age of the patients was 35.27±6.21 years. The minimum age was 26 years and maximum age was 45 years. Out of 160 patients seventeen patients presented with history of neuropathic pain and most of them were already taking the medication.

Keywords: *Neuropathic Pain*

Corresponding author:

Dr. Javeria Yousaf

QR code

Please cite this article in press Javeria Yousaf et al, ***Prevalence Of Neuropathic Pain Among Patients Presenting In Outdoor Department.,*** *Indo Am. J. P. Sci, 2021; 08[1].*

INTRODUCTION:

Neuropathic pain is pain caused by damage or disease affecting the somatosensory nervous system. Neuropathic pain may be associated with abnormal sensations called dysesthesia or pain from normally non-painful stimuli (allodynia). It may have continuous and/or episodic (paroxysmal) components. The latter resemble stabbings or electric shocks. Common qualities include burning or coldness, "pins and needles" sensations, numbness and itching. Up to 7%-8% of the European population is affected,[needs update] and in 5% of persons it may be severe.[needs update] Neuropathic pain may result from disorders of the peripheral nervous system or the central nervous system (brain and spinal cord). Thus, neuropathic pain may be divided into peripheral neuropathic pain, central neuropathic pain, or mixed (peripheral and central) neuropathic pain. Neuropathic pain may occur in isolation or in combination with other forms of pain. Medical treatments focus on identifying the underlying cause and relieving pain. In cases of neuropathy, the pain may progress to insensitivity.

Diagnosis of pain conditions relies on the character of the pain with a sharp stabbing character and the presence of particular features such as mechanical allodynia and cold allodynia. Neuropathic pain also tends to affect defined dermatomes and there may be limits to the area of pain. For neuropathic pain, clinicians look for an underlying lesion to the nervous system or an inciting cause consistent with the development of neuropathic pain. The obvious presence of an underlying feature or cause is not always detectable, and response to treatment may be used as a surrogate particularly in cases where diagnosis of the underlying lesion leaves the patient in pain for a prolonged period of time. MRI may be helpful in the identification of underlying lesions, reversible causes or serious underlying conditions such as primary presentation of a tumor or multiple sclerosis. Quantitative sensory testing (QST), a system of detailed analysis of the somatosensory system, is frequently used in research situations to identify neuropathic pain and a more detailed analysis of its components. It has been suggested by some authorities that QST may have a future role in the diagnosis of neuropathic pain and in particular the identification of neuropathic pain subtypes. Neuropathic pain can occur alone or in combination with other types of pain. The identification of neuropathic pain components is important as different classes of analgesic are required. Difficulties in identifying subtypes of patients with chronic neuropathic pain underlie some of the difficulties in treatment including identifying suitable cohorts of patients for randomized clinical trials. Central neuropathic pain is found in spinal cord injury, multiple sclerosis, and some strokes. Peripheral neuropathies are commonly caused by diabetes, metabolic disorders, herpes zoster infection, HIV-related neuropathies, nutritional deficiencies, toxins, remote manifestations of malignancies, immune mediated disorders and physical trauma to a nerve trunk. Neuropathic pain is common in cancer as a direct result of cancer on peripheral nerves (e.g., compression by a tumor), or as a side effect of chemotherapy (chemotherapy-induced peripheral neuropathy), radiation injury or surgery (1-3). The objective of this study was to see the prevalence of neuropathic pain among the patients presenting in outdoor department.

MATERIAL AND METHODS:

This cross-sectional study was conducted among the patients presenting in outdoor department of different hospitals. Name, age, gender, history of disease and disease duration were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. The quantitative variables were presented as mean and standard deviation. The qualitative variables were presented as frequency and percentages.

RESULTS:

There were 160 patients included in this study i.e., 80 males (50%) and 80 females (50%). The mean age of the patients was 35.27±6.21 years. The minimum age was 26 years and maximum age was 45 years. Out of 160 patients seventeen patients presented with history of neuropathic pain and most of them were already taking the medication.

DISCUSSION:

Neuropathic pain has profound physiological effects on the brain which can manifest as psychological disorders. Rodent models where the social effects of chronic pain can be isolated from other factors suggest that induction of chronic pain can cause anxio-depressive symptoms and that particular circuits in the brain have a direct connection. Depression and neuropathic pain may have a bidirectional relationship and relief of co-morbid depression may underlie some of the therapeutic efficacy of antidepressants in neuropathic pain. Neuropathic pain has important effects on social well-being that should not be ignored. Neuropathic pain sufferers may have difficulty working exhibiting higher levels of presenteeism, absenteeism and unemployment, exhibit higher levels of substance misuse (which may be related to attempted self-medication), and present difficulties with social interactions. Moreover uncontrolled neuropathic pain is a significant risk factor for suicide.

Certain classes of neuropathic pain may cause serious adverse effects necessitating hospital admission, for instance trigeminal neuralgia can present as a severe crisis where the patient may have difficulty talking, eating and drinking. As neuropathic pain may be comorbid with cancer, it can have important dose limiting effects on certain classes of chemotherapeutic.

Pregabalin and gabapentin may reduce pain associated with diabetic neuropathy. The anticonvulsants carbamazepine and oxcarbazepine are especially effective in trigeminal neuralgia. Carbamazepine is a voltage-gated sodium channel inhibitor, and reduces neuronal excitability by preventing depolarisation. Carbamazepine is most commonly prescribed to treat trigeminal neuralgia due to clinical experience and early clinical trials showing strong efficacy. Gabapentin may reduce symptoms associated with neuropathic pain or fibromyalgia in some people. There is no predictor test to determine if it will be effective for a particular person. A short trial period of gabapentin therapy is recommended, to determine the effectiveness for that person. 62% of people taking gabapentin may have at least one adverse event, however the incidence of serious adverse events was found to be low. Although gabapentin and pregabalin possess low abuse potential, these drugs can cause physical dependence over the course of normal treatment, and certain patients may become psychologically dependent as well (4-6).

REFERENCES:

1. McNicol, ED; Midbari, A; Eisenberg, E (29 August 2013). "Opioids for neuropathic pain". The Cochrane Database of Systematic Reviews (8): CD006146. doi:10.1002/14651858.CD006146.pub2. PMC 6353125. PMID 23986501.
2. Davis AM, Inturrisi CE (1999). "d-Methadone blocks morphine tolerance and N-methyl-D-aspartate-induced hyperalgesia". J. Pharmacol. Exp. Ther. 289 (2): 1048–53. PMID 10215686.
3. Bruera E, Palmer JL, Bosnjak S, et al. (2004). "Methadone versus morphine as a first-line strong opioid for cancer pain: a randomized, doubleblind study". J. Clin. Oncol. 22 (1): 185–92. doi:10.1200/JCO.2004.03.172. PMID 14701781.
4. Derry, Sheena; Stannard, Cathy; Cole, Peter; Wiffen, Philip J.; Knaggs, Roger; Aldington, Dominic; Moore, R. Andrew (2016-10-11). "Fentanyl for neuropathic pain in adults". The Cochrane Database of Systematic Reviews. 10: CD011605. doi:10.1002/14651858.CD011605.pub2. PMC 6457928. PMID 27727431.
5. Volkow, Nora D.; McLellan, A. Thomas (2016-03-30). "Opioid Abuse in Chronic Pain — Misconceptions and Mitigation Strategies". New England Journal of Medicine. New England Journal of Medicine 374:1253-1263. 374 (13): 1253–1263. doi:10.1056/nejmra1507771. PMID 27028915.
6. Nicholas, Michael K.; Asghari, Ali; Sharpe, Louise; Beeston, Lee; Brooker, Charles; Glare, Paul; Martin, Rebecca; Molloy, Allan; Wrigley, Paul J. (March 2020). "Reducing the use of opioids by patients with chronic pain: an effectiveness study with long-term follow-up". PAIN. 161 (3): 509–519. doi:10.1097/j.pain.0000000000001763. ISSN 0304-3959. PMID 31764391.