



## Etiology of pain in patients attending a Pain clinic

### *Etiología del dolor en pacientes que acuden a una clínica del dolor*

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#### ABSTRACT

**Background:** the cause of pain is multifactorial and can be due to trauma, infections, autoimmune conditions, etc. In this study, the etiology of the pain was found attending our newly constructed pain clinic. **Aim:** to describe the causes of pain in patients attending our pain clinic. **Methods:** the study was performed at the Pain clinic in the Shri Maharaja Hari Singh Hospital under the supervision of the Department of Anaesthesia, Critical care. One hundred patients were selected and included in the study. The variables age, gender and cause(s) of pain were collected. The patients with chronic pain were selected, and the chronicity of pain was registered through interaction with the subjects and from their previous records. **Results:** the principal cause of pain in patients visiting pain clinic was associated with a motor vehicle accident in 34 patients. 27 patients didn't remember the antecedent cause of their pain. Our data suggested that overall, 33 patients were on some opioids when visiting the pain clinic. Codeine and hydrocodone were the two most consumed opioids. **Conclusions:** more patients were consuming non-opioids than opioids when visiting pain clinics for chronic pain. The principal cause of pain in patients visiting the pain clinic at SMHS Hospital is a motor vehicle accident.

#### RESUMEN

**Introducción:** la causa del dolor es multifactorial y puede deberse a traumatismos, infecciones, afecciones autoinmunes, etc. En este estudio, se describe la etiología del dolor en los pacientes que acuden a una clínica del dolor de reciente creación. **Objetivo:** describir las causas del dolor en los pacientes que acuden a la clínica. **Métodos:** el estudio se realizó en la clínica del dolor del Hospital Shri Maharaja Hari Singh bajo la supervisión del Departamento de Anestesia y Cuidados Críticos. Se seleccionaron 100 pacientes y se incluyeron en el estudio. Se recogieron las variables edad, sexo y causa(s) del dolor. Se eligieron los pacientes con dolor crónico y se registró la cronicidad del dolor mediante la interacción con los sujetos y a partir de sus registros anteriores. **Resultados:** la principal causa de dolor en los pacientes que acudieron a la clínica fue un accidente de tráfico en 34 pacientes, 27 pacientes no recordaban la causa antecedente de su dolor. Los datos sugieren que, en general, 33 pacientes tomaban algún opioide cuando acudieron a la clínica. La codeína y la hidrocodona fueron los dos opioides más consumidos. **Conclusiones:** un mayor número de pacientes consumen fármacos no opiáceos para el dolor crónico al acudir a la clínica. La principal causa de consulta es un accidente de tránsito.



**INTRODUCTION**

Pain is a general term that refers to a variety of unpleasant bodily experiences. It is caused by nerve system activity. Pain is defined as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage.” (1-3) Acute pain is often self-limited and has a protective role, affecting behaviour to prevent additional tissue injury and limiting mobility to aid in healing. (2-5)

Chronic pain is defined, “as pain that persists beyond the normal time expected for tissue healing (usually accepted as 3 months) and without apparent benefit.” (1, 2) Treatment can be complicated and challenging. While there are recommendations for managing chronic pain associated with certain conditions such as cancer, osteoarthritis, fibromyalgia, or neuropathic pain, there is frequently no evident explanation for pain that remains despite therapy. (5, 6) Under these conditions, both practitioner and patient doubt and dissatisfaction can lead to improper polypharmacy and increased dosage of drugs, exposing patients to unneeded treatments and related adverse effects. (7)

The general practitioner remains the most suitable health care provider to treat and, if required, coordinate multidisciplinary therapy for the majority of patients with chronic pain. However, doing so necessitates an awareness of why pain becomes chronic, the plethora of variables that might aggravate continuing pain, and chronic pain treatment must be distinguished from acute exacerbations. It necessitates the cautious formation of realistic expectations, as well as the development of a tailored, tiered, multimodal strategy capable of successfully bringing pain relief and improving function.

**AIM**

To determine the cause of pain in patients attending our

pain clinic.

**METHODS**

The study was conducted in the Pain clinic at Shri Maharaja Hari Singh (SMHS) hospital Srinagar under the supervision of the Department of Anaesthesia, Critical care. One hundred patients were selected and included in the study. Ethical clearance was taken from the hospital’s ethical committee. Age, gender, cause of pain were included in the study. The subjects having pain were separated, and the chronicity of pain was noted through interaction with the patients and their previous records. The data was recorded in a proper questionnaire and proformas.

**Inclusion Criteria:**

Age > 1 year

**Exclusion Criteria:**

Acute/chronic pain of any conceivable surgical cause, who can benefit from immediate surgical interventions  
 Acute pain of any medical cause who primary care physicians can manage

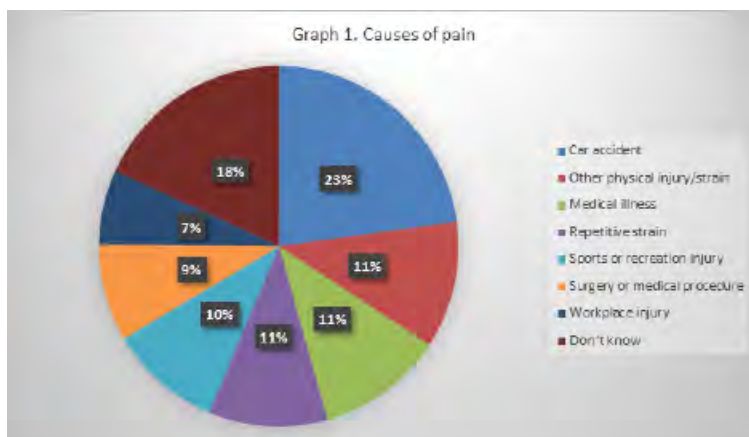
**Statistical analysis:**

All the collected data was recorded in Microsoft Excel and processed using SPSS v23. Categorical variables were described as frequencies and percentages. Discrete variables were described in terms of median and interquartile range.

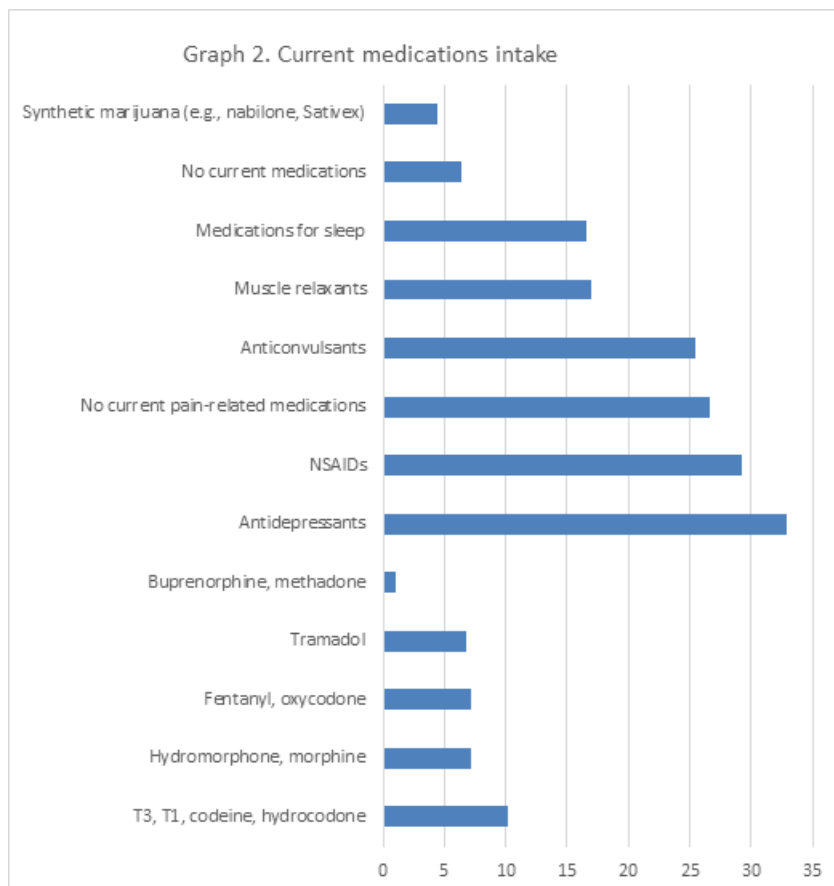
**RESULTS**

**Data distribution based on pain etiology:**

It was found that the principal cause of pain in patients visiting pain clinics was associated with a motor vehicle accident accounting for 34 patients. Twenty seven



patients did not remember the antecedent cause of their pain. Physical injury was caused in 17 patients, medical reason-related pain in 17 patients, sports-related injury in 15 patients, and occupational in 10 patients.



**DISCUSSION**

El patients visiting pain clinics was associated with a motor vehicle accident (MVA). The results of the study by Hu J et al. suggest that the pathogenic trajectory of Chronic widespread pain (CWP) after MVA is characterized by the immediate development of widespread pain which persists, rather than the gradual progression of pain from regional to widespread. (8) In some cases, the cause of chronic pain is hard to identify. Some people experience chronic pain when there’s no other evidence of underlying injury or illness. This is known as functional pain. In our study, around 1/4th of patients didn’t remember the antecedent cause of their pain.

There are multiple studies categorizing patients based on etiology of pain, one of the studies done by Jochen Hardt et.al (9) titled “Prevalence of chronic pain in a representative sample in the United States examined the data from 10,291 respondents who participated in the 1999-2002 National Health and Nutrition Examination Survey (NHANES) and completed a pain questionnaire.

Items allowed classification of chronic (>or=3 months) pain as regional or widespread. They used regression models to test the association of sex and race/ethnicity with each pain outcome, adjusting for age. They found that Chronic pain prevalence estimates were 10.1 % for back pain, 7.1 % for pain in the legs/feet, 4.1 % for pain in the arms/hands, and 3.5 % for headache. Women had higher odds than men for headaches, abdominal pain, and widespread chronic pain. Mexican-Americans had lower odds than non-Hispanic whites and blacks for chronic back pain, legs/feet pain, arms/hands pain, and regional and widespread pain”. Our data may seem very different from other studies, and this may be due to various epidemiological factors governing etiology in this part of the world. A significant subset of patients with chronic pain attending pain clinics belonged to the post road traffic accident as RTAs are epidemic in our state because of hilly roads, challenging terrain, and absence of trauma centers at highways.

Our data suggested that low back pain (LBP) and lower limb pain (LLP) were the most frequent areas. These

findings were similar in a study published by Archana N Deshpande et al. <sup>(10)</sup>, which was done on 1674 subjects. "Out of these, the combined acute and chronic pain prevalence was 29.63 %, and the Prevalence of chronic pain amongst these subjects was 19.23 %, which was predominant in female gender with an age range of 20-60 years. The point prevalence of chronic back pain was highest (24.84 %)."

Our data suggested that overall, one third patients were on some opioids when visiting the pain clinic. Codeine and hydrocodone were the two most consumed opioids. Overall, 99 % of patients were on non-opioids, antidepressants were most often consumed, followed by NSAIDs (32 and 29 respectively). In a study done by Kyriaki Kouyanou et.al <sup>11</sup> "out of 125 chronic pain patients, 88 % of the subjects were taking analgesic drugs for their chronic pain management and out of all these, 69.6 % were taking opioid analgesic medication, 48 % were receiving NSAIDS, 25 % were on antidepressants, and 17.6 % were taking a benzodiazepine. The drugs mentioned above were mostly used by patients for their pain management. Abuse of Psychoactive substances or dependence was diagnosed in 12 %".

### LIMITATIONS

1. Small sample size: these numbers are too small to draw definite conclusion about the patient characteristics and pain profile representing population.

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2. There was no follow up to quantify the patient satisfaction post pain clinic visit.
3. Future study design would need logistic regression model to ascertain contribution of different demographic and patient factors on pain profile of individual patient.

### CONCLUSIONS

The principal cause of pain in patients visiting the pain clinic at SMHS Hospital is a motor vehicle accident. More patients were consuming non-opioids (NSAIDs and antidepressants) than opioids when visiting pain clinics for chronic pain.

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### CONFLICT OF INTERESTS

The authors declare no conflicts of interest.

### AUTHORS' CONTRIBUTION

**Meesam Mirza:** conceptualization, formal analysis, methodology, project management, supervision, writing - original draft.

**Irfan Bashir Malik:** methodology, project management, visualization, writing - original draft, writing - review and editing.

**Tauyiba Farooq Mir:** research, data curation.



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