



Original Article

A Study on Pain Assessment and Management in Total Knee Replacement Patients

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Introduction: Pain is subjective in nature. It can express different manners by the patient (or) Individuals. The role of diagnostic pain procedures is considered very important. It can be classified into acute pain (i.e ; short lived pain) and chronic pain (i.e; pain that lasts for months). It shows effect on socio economic status of the patients. Poor pain management is likely to persist until pain management practices became consistent with guidelines developed from the best available scientific evidence. In case of rational pain management needs pain assessment. So pain assessment plays a major role in rationalize pain management. **Method :** We conducted a single centered observational analysis of adults age 45years undergone Total knee replacement surgery from August 2018-January 2019 at GBR Super speciality hospital, palnadu road, Narasaraopet. Pain assessment was assessed by facial pain scale. **Results:** A long proportion of 48 patients had undergone TKR. Pain assessment is done by using facial pain assessment scale. Male patients have mild pain (3 points) at the time of discharge. Female patients have moderate pain (4 points) after the surgery. **Conclusion:** Pain assessment plays a major role in the management of chronic and acute pain. Articular damage belongs to unsteadiness of the involved knee was a source of pain and by controlling unsteadiness subjecting the articular damage soreness were decreased greatly .So, early assessment of the pain will be more beneficial to the patient.

Keywords: Subjective, pain, scientific evidence, Rational, pain assessment.

1. INTRODUCTION

Pain is an unpleasant sensory and emotional experience that is associated with actual/potential tissue damage on described interm's of such damage. It is a subjective, individual experience that has physical, psychological and social determinants. There is no objective measurements of pain.^{1,2}

1. Acute Pain: Last 30 days longer than the usual healing course for the type of injury and occurs after muscle strains and tissue injury , such as trauma or surgery. Increased

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autonomic nervous system activity frequently accompanies acute pain. Causing tachycardia, tachypnea, hypertension, diaphoresis and mydriasis. Increased anxiety can also occur.³

2. Chronic pain: It is a feeble or episodic pain of a duration or intensity that negatively affects the function or well being of the patient and can persist after the resolution of an injury. Some describe it as lasting more than 6 months.⁴

a. Chronic Non-Malignant Pain: It may be an obstacle of acute injury in which the healing process does not occur as anticipated or may be caused by a disease such as a rheumatological disorder (eg: osteoarthritis, rheumatoid arthritis, fibromyalgia)

b. The elderly are more probable to experience chronic pain because of the increased occurrence of degenerative disorder in this age group.

c. The pain is constant, does not enlarge with time and it is described as a cyclic process.

d. Contrast to acute pain, there is no longer autonomic nervous system stimulation, so the patient may not appear to be in pain. Instead the patient may be depressed, experience insomnia, weight loss and sexual dysfunction and may not be able to cope with the normal activities of daily living, including family and job related activities.⁵

Assessment:

Pain assessment scales are the best way to communicate with doctor and nursing staff how bad pain is. And they can track the pain day over day. They can be a scale from one to ten, with ten indicates the worst pain imaginable and one indicates no pain or normal. These scales can also depend on visual indicators or facial expressions to judge pain. Or, they can be personalized explanation of how pain affects.

Faces pain scale, or Wong-Baker FACES pain rating scale: A scale that relies on faces can be very helpful when diagnosing pain in children and adult. But it can also go a long way towards serving your pain doctor understand the level of your pain during visit.⁶

PAIN MEASUREMENT SCALE

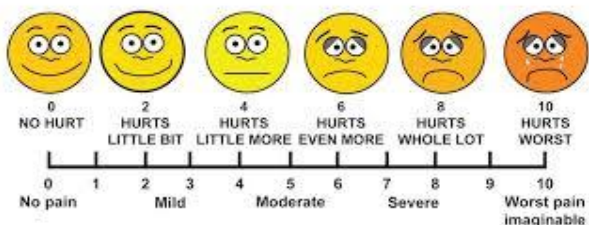


Fig 1: Pain measurement scale

2. MATERIAL AND METHODS

2.1 Study design: The study was conducted at GBR hospital, Palnaduroad, Narasaraopet between August 2018 to January 2019. We recorded all the patients who undergone the total knee replacement surgery. Clinical data were collected. Pain assessment and management are evaluated.

2.2 Objectives: Our primary goal is to estimate the pain assessment in the patients who has undergone the total knee

replacement surgery. Secondary end points include management after total knee replacement surgery.

2.3 Study method: Patient medication details were obtained from patient case sheet and required data is entered in data collection forms. The data was categorized based on various parameters like Gender, Age, Co-morbidities, Prescribed drugs, assessment of pain after surgery. A total of 48 patients undergone total knee replacement surgery are evaluated. Pain assessment was done by using facial pain assessment scale or Wong-Baker FACES pain rating scale.

3. RESULTS AND DISCUSSION

Forty eight patients undergone total knee replacement surgery who met the study criteria were selected to participate, based on information from medical records at GBR hospitals, Palnadu road, Narasaraopet. Out of 48 patients male patients were 25 and female patients were 23, 28 patients have co-morbid condition such as hypertension, Diabetes, Hypertension+ Diabetes, Cardiac diseases, Thyroid and others.

Pain assessment is done by using facial pain assessment scale. Pain was noticed from day 2 in 46 patients out of 48, on day 3 pain was present in 42 patients out of 48, day 4 pain was noticed in 35 patients.

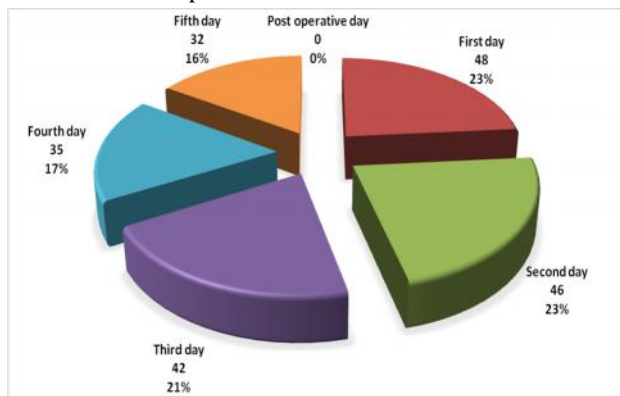


Fig 2: Pain assessment for patients

4. CONCLUSION

Out of 100 percentage 57.09% were male and 47.91% are female. Patients undergone TKR are assessed by Facial pain assessment scale. Early assessment of pain plays an important role in the management of TKR patients. In this study physicians follow the guidelines in a better way to give better outcomes to the patient and to avoid the adverse events.

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6. REFERENCES

1. Leon Shargel; Alan H.Mutnick; PaulF.Souney; LarryN.Swanson Textbook Comphrensive Pharmacy Review; 8th edition.pg.no:1019.
2. Higlard ER, Hilgard J. Hypnosis in relief of Pain. Los Altos: William Kauffman;1975.
3. Australian and New Zealand College of A anesthetists and Faculty of Pain Medicine: Acute Pain Management: Scientific Evidence. Canbeera, Australia: National health and Medical Research Council;2010.
4. Cohen E, Botti M, Hanna B, Leach S, Boyd S, Robbins J: Pain beliefs and pain management of oncology patients. *Cancer Nurs* 2008,31(2):E1-8.
5. Scascighini L, Toma V, Dober-Spielmann S, Sprott H, Multidisciplinary treatment for chronic pain: A Systematic review of interventions and outcomes. *Rheumatology(Oxford)* 2008;47:670-8.
6. Jyothi B, Govindaraj K, Shaikh S. Comparison of analgesic efficacy of levobupivacaine, levobupivacaine and clonidine, and levobupivacaine and dexmedetomidine in wound infiltration technique for abdominal surgeries: A prospective randomized controlled study. *Indian Journal of Pain.* 2017;31(2):127.

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