51 - PAIN BEHAVIOR AND POSTOPERATIVE ANALGESIA IN PATIENTS SUBMITTED TO THORACOTOMY

THAIZA TEIXEIRA XAVIER, LUCIANA ARAÚJO DOS REIS, ROBERTA AZOUBEL,
GILSON DE VASCONCELOS TORRES
Postgraduate Program in Health Sciences Universidade Federal do Rio Grande do Norte (UFRN) Natal-Brazil
Universidade Estadual do Sudoeste da Bahia (UESB)-Bahia-Brazil thaizax@uesb.br

INTRODUCTION

Successful pain treatment requires a systematic, carefully recorded daily assessment. Its goals are relief for the patient through analgesia, etiologic understanding and diagnosis and assessment of therapy effectiveness[1-3].

The occurrence of postoperative pain is used as a decision criterion for the hospital discharge of surgery patients, and if the pain is intense and prolonged, it may increase the occurrence of respiratory, gastrointestinal, musculoskeletal, and neuroendocrine complications as well as unnecessary suffering. Thus, the presence of pain represents an important problem in the postoperative recovery from thoracotomy[4].

A number of factors are involved in adequately controlling pain, including omission and insufficient information from the patient, lack of a medical prescription and improper analgesic administration, difficulty at the assessment and lack of knowledge about pain, in addition to inappropriate attitudes and inadequate practices that impede health professionals from implementing effective methods[5].

Accordingly, the objective of this study was to investigate pain behavior in the postoperative period according to the type of analgesic prescribed for patients submitted to thoracotomy.

METHODOLOGY

This descriptive, transversal study was performed at two hospitals associated to the Brazilian National Health System (SUS). The sample consisted of 40 patients, 20 of whom had undergone posterolateral thoracotomy (PLT) and 20 sternotomy (STE). The instruments used were a physical therapy assessment form, numerical pain scale that is characterized as light (0-3), moderate (4-7) and intense (8-10)[6] and McGill's pain questionnaire, whose scoring is characterized as light (0-26), moderate (27-51) and intense (52-78)[7]. The procedures were carried out after being approved by the UFRN Research Ethics Committee and were performed in two periods: in the preoperative, where the patients were assessed and those meeting the established criteria were included and in the postoperative, where the moment patients complained of pain, they underwent physical therapy assessment. Pain was verified by applying the numerical scale, which was shown to the patients, who then selected the number from zero to ten that best represented their pain. Next, McGill's pain questionnaire was read by the therapist, who was notified of the descriptors that best characterized their pain, which were then recorded as well as the analgesics prescribed.

RESULTS

Forty patients were studied, 24 males and 16 females, 20 of whom had undergone PLT and 20 STE, with a mean age of 48.9 years, who complained of postoperative pain. General patient data was obtained through physical therapy assessment, as can be observed in Chart 1.

CHART 1: GENERAL AND CLINICAL CHARACTERIZATION OF PATIENTS SUBMITTED TO PLT AND EST. NATAL -BRAZIL, 2005.

VARIABLES	SURGICAL PROCEDURES PLT (n=20)	STE (n=20)
Sex	60% male and 40% fem	60% male and 40% fem
Clinical diagnosis	30 %: pulmonary nodule, 30% pulmonary tuberculosis sequela and 40% others	55%: coronary insufficiency and 45% others
Surgery time (hours)	3.7 (±1.4)	2.8 (±0.58)
Age (years)	43.9 (± 13.1)	54 (±15.2)
Education level	55%: Elementary and 45% others	55%: Elementary and 45% others
Type of anesthesia	95%: general anesthesia and 5% general anesthesia and peridural	70%: general anesthesia and 30% general anesthesia and peridural
Thoracic drain	60%: 2 thoracic drains and 40% 1 thoracic drain	75%: 2 thoracic drains and 25% 1 thoracic drain

Analgesic prescriptions revealed postoperative therapy variations in patients submitted to PLT and STE. A diversification of postoperative analgesic behavior was observed in the surgical procedures and the use of analgesics in isolation and/or in combination, at a lower frequency in some patients. No statistical significance was verified, a fact that constitutes a limitation in analysis regarding its influence on the pain response of the subjects. The most frequent analgesics prescribed in the two surgical procedures were Dipyrone (20.0%), Analgesic solution (17.5%) and Paracetamol + Paracetamol with codeine + Dipyrone (17.5%). The distribution of analgesic types according to surgical procedure is found in the table below.

TABLE 1 – DISTRIBUTION OF ANALGESIC TYPES ACCORDING TO POSTEROLATERAL THORACOTOMY (PLT) AND STERNOTOMY (STE). NATAL/BRAZIL, 2005.

ANALGESIC TYPES	PLT N.	%	STE N.	%	TOTAL N. %
Dipyrone	6	30.0	2	10.0	8 20.0
Analgesic solution	7	35.0	-	-	7 17.5
Paracetamol+paracetamol with codeine+ dipyrone	-	-	7	35.0	7 17.5
Paracetamol+paracetamol with codeine	-	-	6	30.0	6 15.0
Analgesic solution+dipyrone	5	25.0	-		5 12.5
Tramadol	2	10.0	-		2 5.0
Paracetamol	-	-	2	10.0	
Paracetamol with codeine	-	-	2	10.0	2 5.0
Paracetamol+dipyrone	-	-	1	5.0	1 2.5
TOTAL	**20**	**100.0**	**20**	**100.0**	**40 100.0**

A predominance of moderate pain was verified in 40% of patient responses, both on the numerical scale and on McGill's questionnaire. But pain showed a tendency toward intense in 22.5% on the numerical scale and 35% on McGill. An association was observed in pain responses in the two instruments used, as shown in Table 2.

Table 2 – DISTRIBUTION OF ANALGESIC TYPE ACCORDING TO PAIN BEHAVIOR IN PATIENTS SUBMITTED TO THORACOTOMY.

ANALGESIC SOLUTION	PAIN					
	LIGHT		MODERATE		INTENSE	
	NUM	McGILL	NUM	MMcGILL	NUM	McGILL
Dipyrone	7.5%	5%	5%	5%	5%	7.5%
Analgesic solution	2.5%	2.5%	12.5%	12.5%	2.5%	2.5%
Paracetamol+paracetamol with codeine+ dipyrone	2.5%	2.5%	7.5%	7.5%	7.5%	7.5%
Paracetamol+paracetamol with codeine	5%	5%	5%	5%	5%	5%
Analgesic solution + dipyrone	2.5%	2.5%	-	-	-	10%
Tramadol	-	-	5%	5%	-	-
Paracetamol	2.5%	2.5%	2.5%	2.5%	-	-
Paracetamol with codeine	2.5%	2.5%	-	-	2.5%	2.5%
Paracetamol + dipyrone	-	-	2.5%	2.5%	-	-

DISCUSSION

In some studies[4,8,9] the characteristics of pain have been assessed in relation to intensity using unidimensional scales and based on the demand for analgesic drugs This has served as a parameter for verifying whether the drugs used for postoperative pain relief are effective.

In the study on post-thoracotomy analgesia, it was verified that the pain following thoracotomy is one of the most intense in the postoperative period. Furthermore, it is long-lasting with consequently reduced ventilation and cough limitation[4].

Pain was also assessed and compared between the different surgical procedures, with postoperative pain manifestation characterized as intense or moderate in 40 to 60% of the cases [10,11].The findings of this investigation demonstrate the importance of valorizing, measuring and assessing the patient's pain in postoperative thoracotomy, given that several studies[12-15] have shown that the occurrence of pain is present at varied intensity, even with the continual use of analgesics in the postoperative period.

It was not possible to verify statistical significance with respect to the type of postoperative analgesic prescription for the surgical procedures studied, due to the diversification of analgesic combinations that were prescribed in isolation and/or in combination at a lower frequency in patients, a fact that constitutes a limitation with respect to the influence of this variable on the pain responses of the study subjects.

In the study performed to assess the effectiveness of bupivacaine and lidocaine in patients submitted to PLT, a visual analogue scale was used to gauge pain intensity, which was characterized as moderate, with no observed statistically significant difference in age, sex, or type of surgery[13].

The results of another study that used bupivacaine and lidocaine showed that, although the patients received different analgesics, there were no statistically significant differences in pain between the two group[8].

The study[16] with bupivacaine administered by catheter in the extrapleural region prior to thoracotomy termination, showed this procedure to be substantially beneficial for preventing postoperative pain and reducing postoperative complications.

The results of another study[17] demonstrated that the pre-emptive administration of epidural ketamineis was effective in reducing the analgesia demands following thoracotomy.

These findings reinforce the hypothesis that in clinical practice pain assessment after surgical procedures is of extreme importance for the quality of care to be provided to these patients. It is necessary to develop routines, in conjunction with the multidisciplinary teams to ensure pain relief for the patients. Successful pain treatment requires a careful assessment of its nature, an understanding of the different pain types and patterns, knowledge of the best treatment and subsequent intervention[18].

CONCLUSION

A variation of analgesic prescriptions was observed both for the patients submitted to PLT and those submitted to STE, which reveals a lack of consensus and protocols for controlling postoperative pain. And even when receiving analgesics, the patients exhibited moderate to intense pain behavior.

The findings of this investigation show the importance of valorizing, measuring and assessing the pain of patients in the postoperative period following thoracic surgery, since they demonstrate that the occurrence of pain is present in varying intensity, even with the continual use of analgesic combinations in the postoperative.

Even considering that there are two possibilities for not using analgesia in pain procedure (when analgesic treatment may cause cardiorespiratory instability or when the patient refuses), it must be remembered that successful pain treatment requires a careful assessment of its nature, an understanding of different pain types and patterns and knowledge of the best treatment. A good initial pain assessment will act as a basis for deciding subsequent interventions.

Health professionals must be aware that every human being is unique and not generalize about his/her actions, perception and behavior, mainly with respect to pain.

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Prof(a) Mestre Thaiza Teixeira Xavier, Universidade Estadual do Sudoeste da Bahia - UESB
End: Rua Gonçalves da Costa, 151, CEP: 45150000, Jequiezinho, Jequié, BA.
thaizax@uesb.br tel:(73) 8105 6744

PAIN BEHAVIOR AND POSTOPERATIVE ANALGESIA IN PATIENTS SUBMITTED TO THORACOTOMY

Abstract: The purpose of this study was to investigate postoperative pain behavior referred to by patients submitted to thoracotomy according to the analgesic prescribed. Methodology: descriptive, transversal study, performed at two hospitals associated to the Brazilian National Health System (SUS), with a sample composed of 40 patients, 24 males and 16 females, mean age of 48.9 years. The instruments used were a physical therapy assessment form, numerical pain scale and McGill's questionnaire. The procedures were performed by applying the instruments, then the numerical scale was shown to the patients, who selected the number from zero to ten that best exemplified their pain and finally the McGill questionnaire was read so that patients could choose the descriptor that best characterized their pain at that moment. After pain assessment, the prescribed analgesics were recorded. Results: A diversification of analgesic prescriptions was observed for patients submitted to thoracotomy and on both the numerical scale and McGill's questionnaire there was a predominance of moderate pain in 40% of patient responses. However, the pain showed a tendency toward intense in 22.5% on the numerical scale and 35% on McGill. Conclusion: A lack of consensus and analgesic protocols in the postoperative following thoracotomy was verified, which shows that pain continues to be under-treated.
Keywords: Thoracotomy, Analgesia and Postoperative Pain.

COMPORTEMENT PÉNIBLE ET ANALGÉSIE POST-OPÉRATOIRE DES PATIENTS SOUMIS A LA THORACOTOMIE

Résumé: Il s'est objectivé enquêter le comportement de la douleur post-opératoire mentionnée par les patients soumis à la thoracotomie, selon l'analgésique prescrit. Méthodologie: étude descriptive avec définition trasnsversal, réalisée dans deux hôpitaux de Natal, Brésil, accordé avec le SUS. L'échantillon s'est composé de 40 patients, 24 du sexe masculin et 16 du sexe féminin, avec âge moyen de 48.9 ans. Les instruments utilisés ont été la Fiche d'évaluation physiothérapeutique, L'échelle numérique de douleur et Questionnaire pour douleur McGill. Les procédures ont été réalisées à travers l'application des instruments. L'eschelle numérique était montrée au patient, étant choisi le numéro de zéro à dix que mieux représentait sa douleur. Le McGill était lu pour le patient qui choisit le descripteur qui mieux caractérisait sa douleur au ce moment. Résultats : S'est observée une diversification de prescriptions analgésiques pour les patients soumis à des thoracotomies et de telle façon dans l'échelle numérique combien dans le McGill a y eu prédominance de douleur modérée dans 40% des réponses des patients. Néanmoins la douleur a présenté une tendance l'intense dans 22.5% dans l'échelle numérique et 35% dans le McGill. Conclusion : S'est constatée une insuffisance combien au consensus et à l'utilisation de protocoles analgésiques dans le post-opératoire de thoracotomies, ce que échantillon qui à douleur continue à en être subtratée.
Mots clés: Thoracotomie, Analgésie et Douleur Post-opératoire

COMPORTAMIENTO DOLOROSO Y ANALGESIA POSOPERATORIA EN LOS PACIENTES SOMETIDOS A TORACOTOMÍAS

Resumen: Este trabajo tuvo como objetivo investigar el comportamiento del dolor posoperatorio referido por los pacientes sometidos a una toracotomía para luego prescribir el analgésico. De carácter descriptivo con delineamento transversal, realizado en dos hospitales de Natal credenciados por el "Sistema Único de Saúde SUS", la muestra estuvo compuesta por 40 pacientes, 24 del sexo masculino y 16 del femenino, con una media edad de 48,9 años. Los instrumentos utilizados fueron: fichas de evaluación fisioterapéutica, una escala numérica de la intensidad del dolor y el cuestionario del dolor de McGill. Las informaciones fueron colectadas a través de la aplicación de los instrumentos, la escala numérica era mostrada al paciente siendo escogido un número de cero a diez que mejor representase su dolor y luego el McGill era leído por el paciente que escogía el descriptor que mejor caracterizase su dolor en aquel momento. Después de la evaluación dolorosa eran prescritos los analgésicos. Se observó una diversificación de prescripciones analgésicas para los pacientes sometidos a toracotomías y tanto en la escala numérica como en el de McGill hubo una predominancia de dolor moderado constatado en un 40% de las respuestas de los pacientes. Empero, la intensidad del dolor haya presentado una tendencia a intensa con un 22,5% en la escala numérica y 35% en el de McGill. Se constató una deficiencia en relación al consenso y uso de protocolos analgésicos en el posoperatorio en toracotomías, mostrando que el dolor continúa siendo subtratado.
Palabras-llave: Toracotomía, Analgesia y Dolor Posoperatorio.

COMPORTAMENTO DOLOROSO E ANALGESIA PÓS-OPERATÓRIA EM PACIENTES SUBMETIDOS A TORACOTOMIAS

Resumo: Objetivou-se investigar o comportamento da dor pós-operatória citada pelos pacientes submetidos à toracotomia, segundo o analgésico prescrito. Metodologia: estudo descritivo com delienamento trasnsversal, realizado em dois hospitais de Natal, Brasil, conveniados com o SUS. A amostra foi composta por 40 pacientes, 24 do sexo masculino e 16 do sexo feminino, com idade média de 48,9 anos. Os instrumentos utilizados foram a ficha de avaliação fisioterapêutica, a escala numérica de dor e questionário para dor McGill. Os procedimentos foram realizados através da aplicação dos instrumentos. A escla numérica era mostrada ao paciente, sendo escolhido o numero zero a dez que melhor representava a sua dor. O McGill era era lido para o paciente que escolhia o descritor que melhor caracterizava a sua dor naquele momento. Resultados: Observou-se uma diversificação de prescrições analgésicas para os pacientes submetidos a toracotomias e tanto na escala numérica quanto no McGill houve predominância de dor moderada em 40% das respostas dos pacientes. Porém a dor apresentou uma tendência a intensa em 22,5% na escala numérica e 35% no McGill. Conclusão: Constatou-se uma deficiência quanto ao consenso e o uso de protocolos analgésicos no pós-operatório de toracotomias, o que mostra que a dor continua sendo subtratada.
Palavra chave: Toracotomia, Analgesia e Dor pós-operatória.