137 - PAINFUL PERCEPTION AND FACTORS OF RISK RELATED TO THE PAIN OF POST-THORACOTOMIES

THAIZA TEIXEIRA XAVIER; MELISSA PINTO GURGEL;
LUCILA CORSINO DE PAIVA; GILSON DE VASCONCELOS TORRES.
Doutoranda Bolsista FAPESB/BA/UESB - Post-Graduate Program in Health Sciences / UFRN, Natal/RN, Brazil,
thaizax@yahoo.com

INTRODUCTION

The painful perception due to operative procedures can be showed as moderate or intense in 40% to 60% of the cases[1], it is characterized as an experience multidimensional, being diversified in the quality and in the sensorial intensity, being affected by variables affective-emotional[2].

We will highlight in this study the interference of factors related with the acute pain due to the thoracotomies, that although they are accomplished at the patients' thorax, the type and the place of the surgical incision involves different muscular structures and bones[3], which together with the time of surgery and anesthesia type are considered as factors of surgical risk interfering directly in the prognostic of the pacientes[4].

In the study on the influence of the sex in the post-thoracotomies pain it was observed that the women have different painful complaint in relation to men[5]. Another analyzed factor is the influence of the thoracic drains in the painful answer that came in the submitted patients of heart surgery as an intense pain[6]. The location of the drains in the space intercostal provokes friction in this responsible space for a more intense pain when compared to the pain due to the sternal drain[7].

When the pain is evaluated and it is told by the patient, it means that the painful process is installed, being necessary then the identification of risk factors for pain post-thoracotomy, being possible this attitude through the use of specific instruments.

The attendance to the patients in relation to the conducts and procedures starting from the information of the pain due to the surgical procedures can influence positively in the dynamic of the performance of the team.

This way, coming from the presupposition that the painful perception due to thoracotomies suffers influence of factors pre, trans and post-operative, the purpose of this study was to identify the intensity of the pain referred by the patients and the professionals' opinion about the factors of pain risk post-thoracotomy.

METHODOLOGY

It is a cross sectional study with quantitative approach. The study, that was approved for UFRN Ethics Committee for assisting to the research precepts in humans, was accomplished in two Hospitals of Natal/RN that assist patients submitted to thoracotomy, being these hospitals linked to public health system for accomplishment this surgical procedure.

The data were collected starting from physiotherapeutic evaluation of patients submitted the thoracotomy and of the pain evaluation by the application of the numeric pain scale, that consists a interval from 0 to 10, in which “0” means pain absence and “10” the worst imaginable pain. To identify the professionals' opinion with relationship to the pain risk factors post-thoracotomy was used it a adapted protocol which ranges from “0” to “10” points for the professionals.

In the post-operative moment in that the patients complained about pain they were evaluated through the numeric pain scale and the patients complains were referred from “0” to “10” points, being then the pain notified by the researcher.

In the second stage the pain risk factors to post-thoracotomy of interest for this study (time of surgery, type of surgical incision, thoracic drain, anesthesia type, age and sex) were correlated with the referred pain by 40 patients submitted to thoracotomy.

In the third stage these factors were presented the professionals' team that are responsible for the patient's care in the post-operative (5 surgeons, 1 doctor intensives, 2 physiotherapists and 5 male nurses), with selection criterion to be responsible for the submitted patients the thoracotomies in this phase and they have more than 5 years of experience with these patient. The pain risk factors to post-thoracotomy were shown to the professionals and they were requested to express the intensity of the pain from “0” to “10”. The data were organized, tabulated and submitted to the statistical treatment using Kruskal-Wallis Test[9].

RESULTS

The found results were analyzed starting from six risk factors to current pain in the thoracotomy postoperative, being these: time of surgery (up to 3 hours and more than 3 hours), type of surgical incision (poster-lateral and sternotomy), drain thoracic (lateral and mediastinal), anesthesia type (general and general associated with epidural), age (adult and elderly) and gender (male and female) with the intensity painful due to the thoracotomy. The referring data varied in according to the Table 1.

TABLE 1 - Pain risk factors and intensity referred by the patients and by the professionals' opinion.

PAIN RISK FACTORS	Intensity of the pain	
	Professionals	Patient
1. Time of Surgery		
1.1 up to 3 hours	3.8	5.9
1.2 more than 3 hours	6.4	5.4
p-value	0.00	0.20
2. Type of Thoracic Surgical Incision		
2.1 Sternotomy	4.8	6
2.2 Póstero-lateral	6.2	5.5
p-value	0.06	0.67
3. Thoracic Drain		
3.1 Lateral	6.3	4.7
3.2 Mediastinal	3.5	5.1
p-value	0.00	0.55
4. Type of Anesthesy		
4.1 General	5.6	5.5
4.2 general and peridural	4.5	5.8
p-value	0.01	0.97
5. Age		
5.1Adult	5.2	5.8
5.2 Elderly	5.9	5.9
p-value	0.24	0.55
6. Gender		
6.1 Male	6.8	5.7
6.2 Female	5.2	5.8
p-value	0.14	0.58

It was researched in this study 40 patient, 24 male and 16 female that complained about postoperative pain, of the which 20 were submitted to poster-lateral thoracotomy (PLT) and 20 to Sternotomy (EST). The painful perception referred by patients submitted to PLT and EST was evaluated by the pain numeric scale. The professionals judged the pain about to the risk factors post-

thoracotomies were 13, among these, 5 surgeons, 1 doctor intensives, 2 physiotherapists and 5 nurses.

It was observed when comparing the surgical time of up to 3 hours with time of more than 3 hours that the pain due to the thoracotomies according to the professionals presented statistical significance (p-valor=0.00), however when comparing the patients' pain this statistical significance it was not evidenced (p-valor=0.20).

The insertion of the thoracic drain can be lateral or mediastinal and when comparing the pain among these two locations, the professionals referred that the pain of the lateral drain was superior to the mediastinal, with statistical significance (p-valor=0.00), already about the patients´ opinions with lateral drain or mediastinal one it was not evidenced statistical significance as the painful intensity.

According with the anesthetic type, the patients were divided in two groups, the first one that received general anesthesia and the second one that received associated general anesthesia and epidural. Statistical significance was observed when compared the painful intensity among these two procedures for the professionals' judgment (p-valor=0.01), although it was not observed statistical significance (p-valor=0.97) among the patients.

About age, elderly individuals referred more pain, however when comparing the pain between elderly and adults statistical significance it was not observed (p-valor=0.55), the same results were found by the professionals (p-valor=0.24).

The average of the painful intensity referred in the pain numeric scale by the female patients it was higher than male ones, but when this value was compared it was not observed statistical significance (p-valor=0.58). However about gender the professionals referred that male pain is higher than female, however when this value was submitted to the statistical analysis it was not observed statistical significance (p-valor=0.14).

DISCUSSION

Some studies point out that the location and the type of incision surgeon[10] have influence direct in the painful intensity perception[11], being these aspects evaluated when comparing the intensity of the pain due to surgical procedures accomplished in the thorax[12-13]. Researches have demonstrated that the gender and the surgical approach influenced in the patients' painful intensity in the postoperative of thoracotomes[1]. In the comparative research of the pain intensity among the patients submitted to the thoracotomy and thoracoscopy for lung biopsy, they didn't demonstrate difference statistical[14]. The influence of the age, gender and surgeon type in the painful intensity[15] were studied to evaluate the effectiveness of the bupivacaína and of the lidocaína in patients submitted to TPL, and it was not observed any statistical difference among these variables.

The location of the thoracic drains was analyzed in some studies that revealed the discomfort degree and of the pain referred by the patients submitted to Sternotomy and it was observed that the pain was more intense in the patients with drain intercostals than in the patients with drain subxifóide[7]. In another study accomplished post-surgery thoracic it was observed that the painful intensity this directly related with the permanence of thoracic drains, being the strong pain in the first 48 to 72 horas[16]. In the present study it was observed that to possess a thoracic drain, with location in the area intercostals or in the subxifoide, there was not statistical significance with relationship their pain.

The patients and professionals opinions were observed in a study[17] about painful procedures accomplished in the postoperative of heart surgery. It was obtained this study[17] information concerning the magnitude, location and quality of the pain, and it was noticed that the professionals underestimated the patient pain. However in this study when they discuss about the pain due to TPL and of the STN the professionals judged that the pain due to three pain risk factors were statistically significant, while this difference it was found in the patients opinions.

There are several the factors involved in the inadequate control of the pain, including omission and lack of the patient's information, lack of medical prescription and inadequate administration of analgesic, difficulty in the evaluation, the knowledge lack on pain, the existences of attitudes no suitable and inadequate practices difficult the professionals of health of implementing effective methods[16].

CONCLUSION

It was observed in this study when comparing the intensity of the pain that there was different values in each factor of pain risk among the patients and among the professionals there was difference statistics with the surgical time from up to 3 hours and more than 3 hours, the location of the drain thoracic intercostals and subxifóide, and the type of anesthetic, general or general associated with peridural. However about the pain referred by the patients after comparing among the risk factors it was not observed difference statistics.

The pain evaluation post-thoracotomy by the professionals that attended patients submitted to the thoracotomy is important to the accomplishment of an effective conduct to minimize the postoperative pain, improving thus the procedures physiotherapeutic.

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Aeroporto de Congonhas street, 369, Águas Claras, Parnamirim/RN, Brazil.
Postcod: 59150-000 Phone: (84) 36435508 / (84)91089680.
E-mail: thaizax@yahoo.com

PAINFUL PERCEPTION AND FACTORS OF RISK RELATED TO THE PAIN OF POST-THORACOTOMIES

ABSTRACT

The purpose of this study was to identify the intensity of the pain referred by the patients and the professionals' opinion about the factors of pain risk post-thoracotomy. It a transversal study and quantitative approach. 40 patients submitted to the thoracotomies were researched according to their pain and 13 requested professionals gave their opinions about the intensity of pain from zero to ten in six risk factors for the pain post-thoracotomy: time of surgery, type of surgical incision, drain thoracic, anesthesia type, age and sex. The average of the pain was compared between the professionals and the patients and it was observed that the professionals' opinion about the surgical time, the location of the thoracic drains and the anesthetic type (they presented p-value of 0,00, 0,00 and 0,01, respectively) they have influence in the submitted patients' thoracotomy pain, however the pain told by the patients to be compared among the risk factors for pain was not observed its statistics differences. The evaluation of the pain due to thoracotomies by the professionals that followed submitted patients of thoracotomies is essential in the accomplishment of an effective conduct to minimize the post-operative pain, aiding this way, in the procedures of physical therapy.

KEY-WORDS: sharp pain, thoracotomy, risk factors.

PERCEPTION DOULOUREUSE ET FACTEURS DE RISQUES LIÉS AUX DOULEURS POST-THORACOTOMIES

RESUME

Cette étude a pour objectif d'identifier l'intensité de la douleur pour chaque patient et l'opinion des professionnels à propos des facteurs de risques de douleur post-thoracotomie. Il s'agit d'une investigation avec un délignement transversal et abordage quantitatif. L'étude a été réalisée sur 40 patients qui ont été opérés de thoracotomie avec douleur et 13 professionnels qui ont été invités à donner leur opinion sur l'intensité de la douleur (de 0a10) sur six facteurs de risques pour les douleurs post-thoracotomie : temps d'opération, temps d'incision chirurgicale, drain thoracique, type d'anesthésie, âge et sexe. La moyenne de la douleur a été comparée entre les professionnels et les patients et on a observe que l'opinion des professionnels à propos du temps chirurgicale, la localisation du drain thoracique et le temps d'anesthésie (présentés par valeur de 0.00, 0.00 et 0.01 respectivement) ont des influences sur la douleur des patients et en les comparants avec les facteurs de risques pour la douleur on n'a pas observes de différences statistiques. L'évaluation de la douleur provenant de thoracotomies est inévitable dans la réalisation d'une conduite efficace pour minimiser la douleur post-opératoire, en aidant de cette forme, les procédés physiothérapeutiques.

MOTS-CLES: douleur aigu, thoracotomie, facteurs de risque.

PERCEPCIÓN DOLOROSA Y FACTORES DE RIESGO RELACIONADO AL DOLOR POS-TORACOTOMÍAS.

RESUMEN

Este estudio tiene como objetivo identificar la intensidad del dolor referida por pacientes y la opinión de los profesionales cuanto a los factores de riesgo del dolor pos-toracotomía. Tratase de una investigación con delineamiento transversal y abordaje cuantitativo. La investigación ha sido hecha con 40 pacientes que habían sido sometidos a toracotomías cuanto a su dolor y 13 profesionales invitados a opinar sobre la intensidad del dolor de cero a diez en seis factores de riesgo para dolor pos-toracotomías: tiempo de cirugía, tipo de incisión quirúrgica, dreno torácico, tipo de anestesia, edad y sexo. La media del dolor ha sido comparada entre los profesionales y los pacientes y se ha observado que la opinión de los profesionales cuanto al tiempo quirúrgico, la localización de dreno torácicos y el tipo de anestésico (presentaran p-valor de 0.00, 0,00 e 0,01, respectivamente) tiene influencia en el dolor de los pacientes y al ser comparadas entre los factores de riesgo para dolor no se ha observado diferencia estadística. La evaluación del dolor decurrente de toracotomías es imprescindible en la realización de una conducta eficaz para minimizar el dolor pos operatorio, auxiliando de esta forma, en los procedimientos fisioterapéuticos

PALABRAS CLAVE: dolor aguda, toracotomía, factores de riesgo.

PERCEPÇÃO DOLOROSA E FATORES DE RISCO RELACIONADOS A DOR PÓS-TORACOTOMIAS

RESUMO

Este estudo teve como objetivo identificar a intensidade da dor referida pelos pacientes e a opinião dos profissionais quanto aos fatores de risco de dor pós-toracotomia. Trata-se de uma pesquisa com delineamento transversal e abordagem quantitativa. Foram pesquisados 40 pacientes submetidos a toracotomias quanto a sua dor e 13 profissionais solicitados a opinarem sobre a intensidade da dor de zero a dez em seis fatores de risco para dor pós-toracotomias: tempo de cirurgia, tipo de incisão cirúrgica, dreno torácico, tipo de anestesia, idade e sexo. A média da dor foi comparada entre os profissionais e os pacientes e observou-se que a opinião dos profissionais quanto ao tempo cirúrgico, a localização dos drenos torácicos e o tipo de anestésico (apresentaram p-valor de 0,00, 0,00 e 0,01, respectivamente) têm influência na dor dos pacientes submetidos a toracotomias, porém a dor relatada pelos pacientes ao serem comparadas entre os fatores de risco para dor não observou-se diferença estatística. A avaliação da dor decorrente de toracotomias pelos profissionais que acompanham pacientes submetidos a toracotomias é imprescindível na realização de uma conduta eficaz para minimizar a dor pós-operatória, auxiliando desta forma, nos procedimentos fisioterapêuticos.

PALAVRAS-CHAVES: dor aguda, toracotomias, fatores de risco.