

CATASTROPHIZING OF PAIN AS A PREDICTOR OF PRE- AND ACUTE POSTOPERATIVE PAIN IN PATIENTS WITH CARPAL TUNNEL SYNDROME

Aistė Pranckevičienė¹,

Neuroscience Institute, Lithuanian University of Health Sciences, Lithuania

Justina Dimšaitė

Medical Academy of the Lithuanian University of Health Sciences, Lithuania

Antanas Budėnas

Medical Academy of the Lithuanian University of Health Sciences, Lithuania

Andrius Radžiūnas,

Neuroscience Institute, Lithuanian University of Health Sciences, Lithuania

Abstract. Background and purpose. Research shows that pain catastrophizing might be an important predictor of pain related outcomes in patients with various health conditions despite of objective severity of the illness. This study aimed to evaluate prognostic value of catastrophizing the pain in predicting pain intensity before and one day after the surgery for median nerve decompression in a sample of patients with carpal tunnel syndrome (CTS). **Methods.** 53 patients with electrodiagnostically proven CTS participated in this study. Patients were assessed before and one day after the surgery for median nerve decompression using the Pain Catastrophizing Scale (PCS), and the Short Form of the McGill Pain Questionnaire (SF-MPQ). Intensity of pre- and acute postoperative pain was evaluated using visual analogue scales. **Results.** Level of reported pain decreased significantly one day after the surgery. No significant correlations were observed between pain catastrophizing and average level of pain during a week before and one day after the surgery. Correlation was observed between highest experienced level of pain after the surgery and preoperative total PCS

¹ Address for correspondence: Aistė Pranckevičienė, Neuroscience Institute, Laboratory of Clinical Research, Lithuanian University of Health Sciences, Eiveniu st. 4, LT-50009 Kaunas, Lithuania. E-mail: aiste.pranckeviciene@ismuni.lt

score. However, pain catastrophizing did not predict neither preoperative nor acute postoperative pain one day after the surgery in multivariate analyses when other study variables were taken into account. Sensory dimension of SF-MPQ was a better predictor of preoperative pain. None of pain and demographic variables predicted acute postoperative pain. **Conclusions.** Pain catastrophizing was not found to be a significant predictor of pre- or acute postoperative pain in CTS patients.

Keywords: carpal tunnel syndrome, pain catastrophizing, pain intensity, surgery, predictive validity.

INTRODUCTION

Carpal tunnel syndrome (CTS), that is, the idiopathic median nerve neuropathy at the carpal tunnel, is the most common mono neuropathy of the upper extremity (Makanji et al., 2012), affecting up to 5% of the general population (Dale et al., 2013). The condition occurs when the median nerve, one of the hand's major nerves, becomes squeezed or compressed in the wrist area. The most frequent symptoms of CTS include numbness, tingling, burning, and pain in the first three fingers of the hand; the symptoms usually become more intensive during the night (Tamburin et al., 2008; Bhatt, Sheth, Vyas, 2015). About 50% of the patients also report motor symptoms such as hand weakness and difficulties in grasping small objects (Tamburin et al., 2008). Early symptoms of CTS can often be relieved by giving the wrist enough rest, avoiding certain activities that intensify pain, wrist splinting, nonsteroidal anti-inflammatory drugs or injections of corticosteroids. However, if the pressure on the median nerve continues, it can lead to serious nerve damage and worsen symptoms. In this case, surgery to release the pressure of the median nerve is recommended (Lane et al., 2014).

Although damage of median nerve might be confirmed and evaluated by means of objective electrophysiological measures, Makanji et al. (2012) showed that objective clinical data does not directly predict the level of pain and disability in CTS patients. Some patients have no symptoms despite the presence of severe electrophysiological findings as opposed to patients with severe symptoms despite objectively measured mild electrophysiological dysfunction (Sonahata et al., 2013). According to Nunez, Vranceanu and Ring (2010), illness behavior and illness related emotions such as depression or a tendency to exaggerate

noxious stimuli are better predictors of pain intensity than demographic factors and objective pathophysiological measures in CTS patients. Thus, psychological characteristics of patients, and especially illness related reactions such as depression or a tendency to catastrophize, might serve as important predictors of treatment outcomes (Lozano, Calderón, Paiva, Ring, 2008).

Sullivan, Bishop and Pivic (1995) studied the role of pain catastrophizing which might be defined as a negative cognitive-affective response to anticipated or actual pain. Magnification (the propensity to amplify pain), rumination (the tendency to relive painful experience) and feelings of helplessness in pain situation are considered as main components of pain catastrophizing (Sullivan, Bishop, Pivik, 1995).

Special attention is given to the prognostic value of catastrophizing as it is believed that patients with a tendency to exaggerate pain might be susceptible to a higher distress response to aversive medical procedures (Sullivan, Bishop, Pivik, 1995). Correlation between pain catastrophizing and array of clinical pain-related outcomes, such as pain intensity, pain-related activity interference, disability, more frequent seeking of medical care and narcotic usage, postsurgical pain, and decreased mental health, in various pain patients have been found (Quartana, Campbell, Edwards, 2009; Kim et al., 2015; Vranceanu et al., 2010; Kremer et al., 2013). Quartana, Campbell and Edwards (2009) indicated that a high level of pain catastrophizing should be considered as a risk factor for adverse acute and long-term pain-related outcomes. Furthermore, pain catastrophizing and pain behavior have been found to predict days lost from work and failure to return to work in subacute and chronic low back pain patients (Fernandes et al., 2012). The growing need for multidisciplinary approach orientated towards the early detection and treatment of risk factors of a subjective pain and disability when providing medical care for patients with CTS is acknowledged (Das De, Vranceanu, Ring, 2013; Yang et al., 2016, Teunis et al., 2015). Therefore, this study evaluated the prognostic value of pain catastrophizing in predicting pain intensity before and one day after the surgery used for median nerve decompression.

METHODS

Sample and procedure

Ethical approval for this study was obtained from the Lithuanian University of Health Sciences Bioethical Center, on October 2015. All eligible subjects read and sign an informed consent form prior to participating in the study. To ensure anonymity, a unique study identification number was allocated to each subject on recruitment.

Patients admitted to Neurosurgery Clinic at Hospital of Lithuanian University of Health Sciences from November 2015 to March 2016 for carpal tunnel release surgery who had clinical symptoms of CTS which was electrodiagnostically proven were invited to participate in this study. Patient agreement along with decreased median nerve conduction velocity (≤ 35 m/s) at the level of carpal tunnel, proven by electrodiagnostic testing, were the main inclusion criteria in the present study. The final study sample consisted of 53 patients, 12 (22.6%) males and 41 (77.4%) females, mean aged 60.5 years, SD – 13.0, ranging from 36 to 88 years. Altogether, 23 (43.4%) of the patients had CTS in their left, and 30 (56.6%) in their right hand.

The electrodiagnostical assessments were performed by two experienced neurologists using a standard nerve conduction test method for CTS (described in Svilpauskaitė et al., 2006) with decrease in median nerve sensory or motor conduction being the key criterion. Questionnaires were introduced to patients upon their arrival to the hospital before the surgery by two fifth year medical students participating in the study. Patients were asked to answer questionnaires before the surgery and to mark average and highest pain after the surgery on a visual analog scale next morning. Participants were required to fill out the questionnaires themselves, but in some cases, when patients were incapable to read or write on their own, the questions were read out loud and/or their answers were marked for them by the same medical students.

Measures

Pain catastrophizing was assessed using the Pain Catastrophizing Scale (PCS, Sullivan, Bishop, Pivik, 1995). The PCS is a public domain and can be freely used for research purposes (Sullivan, 2009). Permission

to translate the PCS was obtained from M. J. L. Sullivan. The Lithuanian version of this scale was prepared by authors of this article according to the recommendations for the translation and adaptation of psychological questionnaires (Sousa & Rojjanasrirat, 2011). Steps of forward and back translation by two independent translators, review of the translations by a field expert, and a pilot testing with several patients were used to develop final Lithuanian version of the scale. The PCS contains thirteen items rated in 5-point scale ranging from 0 – not at all, to 4 – all the time. Three subscales representing main components of catastrophizing, rumination, magnification and helplessness were calculated besides the total scale score. PCS demonstrated adequate reliability, Cronbach alpha ranging from .74 to .90.

A short form version of the McGill Pain Questionnaire (SF-MPQ, R.Melzack, 1987, contact for information and permission to use: Mapi Research Trust, Lyon, France – Internet: <https://eprovide.mapi-trust.org/>) was used as an additional measure of pain. The questionnaire contains 15 descriptions of pain which are rated on a 4 item-intensity scale ranging from 0 – none, to 3 – severe. Three pain scores were derived from SF-MPQ: affective dimension of pain (4 items), sensory dimension of pain (11 items) and total pain score. Lithuanian version of SF-MPQ demonstrated good reliability in previous research (Juozapavičienė, 2015). In current study, Cronbach alpha ranged from .76 for an affective subscale to .87 for a total pain score.

Intensity of pre- and acute postoperative pain was evaluated using visual analogue scales (VAS). Preoperatively patients were asked to evaluate average intensity of their pain during the past week and to indicate the highest intensity of experienced pain during the past week. One day after the surgery, patients were asked to evaluate average as well as highest pain during the last 12 hours.

Descriptive statistics were used to describe study sample and illustrate intensity of the pain. Nonparametric Wilcoxon signed ranks test was used to evaluate changes in pain intensity after the surgery. Correlation analysis was used to clarify relationship between pain catastrophizing and pain intensity. Finally, linear regression analysis was employed to evaluate relationship between pain catastrophizing and pain intensity in the context of other study variables. Data was analyzed using the SPSS for Windows.

RESULTS

The reported pain decreased significantly one day after the surgery. Highest reported pain decreased from 6.4 (SD 2.7) to 3.3 (SD 2.4) points (Wilcoxon Signed Ranks Test $Z = -5.3, p < .01$); average pain decreased from 5.9 (SD 2.7) to 2.6 (SD 2.0) points (Wilcoxon Signed Ranks Test $Z = -5.1, p < .01$) (Table 1).

Table 1. Descriptive statistic of study variables

<i>Study variable</i>	<i>Mean</i>	<i>SD</i>	<i>Minimum</i>	<i>Maximum</i>
Age	60.47	13.03	36	88
Highest level of pain before the surgery	6.42	2.66	0	10
Average level of pain before the surgery	5.89	2.74	0	10
Highest level of pain intensity one day after the surgery	3.32	2.41	0	9
Average level of pain one day after the surgery	2.60	1.99	0	7
PCS Total ^a	23.77	11.74	2	49
PCS Rumination	9.25	4.15	0	16
PCS Magnification	4.21	3.45	0	12
PCS Helplessness	10.32	5.67	0	23
SF-MPQ Total ^b	15.11	9.73	0	42
SF-MPQ Sensory Score	12.23	7.46	0	33
SF-MPQ Affective Score	2.89	3.11	0	11

^a Pain Catastrophizing Scale; ^b McGill Pain Questionnaire, Short Form.

Total score of PCS ranged from 2 to 49; mean – 23.8, SD – 11.7. Scores did not deviate significantly from a normal distribution (Shapiro-Wilk Test, $p = .41$). PCS scores did not differ significantly between gender

(females: mean (SD) 25.2 (12.0); and males: 18.8 (9.5), $t = -1.7$, $p = .10$). No correlation with age was observed (Pearson $r = -.02$).

No correlations were observed between total PCS score and average level of pain during a week before the surgery (Table 2). Mild correlations were observed between helplessness and reported highest levels of pain before the surgery. Average reported pain one day after the surgery did not significantly correlate with preoperative catastrophizing of pain. However, weak but significant correlation was observed between the highest experienced level of pain after the surgery and preoperative total PCS score. Moderate correlations were observed between PCS and SF-MPQ scores.

Table 2. Relationship between PCS and other measures of pain. Pearson r

	<i>Rumination</i>	<i>Magnification</i>	<i>Helplessness</i>	<i>Total PCS score</i>
Highest level of pain before the surgery	.20	.15	.28*	.25
Average level of pain during a week before the surgery	.08	.06	.11	.10
Highest level of pain one day after the surgery	.26	.23	.25	.28*
Average level of pain one day after the surgery	.18	.15	.19	.20
SF-MPQ Sensory dimension	.37**	.31*	.40**	.41**
SF-MPQ Affective dimension	.34**	.53**	.44**	.49**
SF-MPQ Total pain score	.39**	.40**	.45**	.47**

$p < .05$, ** $p < .01$.

To evaluate prognostic value of PCS for the prediction of pre- and acute postoperative pain in CTS patients, linear regression analysis was employed. Levels of pre- and postoperative pain were predicted by the total score of preoperative PCS, age, gender, SF-MPQ sensory and affective dimensions.

Pain catastrophizing predicted neither preoperative nor acute postoperative pain one day after the surgery. Higher levels of preoperative pain were predicted by the sensory dimension of SF-MPQ. Analyzed variables failed to predict levels of acute postoperative pain, model of regression for average and highest postoperative pain was non-significant.

Table 3. Summary of regression models for the prediction of pre- and acute postoperative pain in CTS patients

	Highest preoperative pain		Average preoperative pain		Average pain one day after the surgery		Highest pain one day after the surgery	
	<i>Regression models statistics</i>							
Adj.R ²	.16		.22		.01		.10	
F	2.92		2.61		1.05		2.14	
p	.02		.04		.40		.08	
	<i>Regression coefficients</i>							
	<i>Std.β</i>	<i>p</i>	<i>Std.β</i>	<i>p</i>	<i>Std.β</i>	<i>p</i>	<i>Std.β</i>	<i>p</i>
PCS Total	.01	.96	-.08	.60	.11	.50	.11	.49
Gender	.20	.14	.01	.93	-.01	.97	.05	.40
Age	-.07	.60	.19	.17	.11	.46	.11	.43
SF-MPQ Affective dimension	.11	.54	.04	.84	.31	.11	.37	.06
SF-MPQ Sensory dimension	.35	.05	.39	.03	-.15	.44	-.01	.94

DISCUSSION

This study aimed to evaluate the prognostic value of catastrophizing the pain in predicting pain intensity before and one day after the surgery for median nerve decompression in carpal tunnel syndrome. Fifty-three patients with CTS with an objectively proven decreased median nerve conduction velocity participated in this study. Patients' selection based on the objective electrodiagnostic data is one of the major strengths

of this study. Although some surgeons still base their surgery decisions on patients' complaints and clinical examination only, Makanji et al. (2012) stressed that absence of objectively verifiable pathophysiology represents either an inaccurate diagnosis or a very mild disease. Thus, objectified patients' selection in this study resulted in a more homogeneous sample; patients with possible complaints of psychological nature were excluded.

To our knowledge, this was the first study analyzing the predictive value of Lithuanian version of PCS. Lithuanian version demonstrated adequate internal consistency and that was close to that reported by the scale author (Sullivan, 2009). Level of pain catastrophizing in our sample was somewhat higher than reported by the scale author: in our sample, mean for the total score of PCS was 23.8, SD – 11.7; while Sullivan (2009) reported mean to be 20.9, SD – 12.5 in a sample of 851 injured workers. This difference might have been expected as our sample consisted of patients with chronic conditions pain being one of the primary complaints.

Scores of the PCS correlated significantly with other measures of pain. Correlation analysis revealed that pain catastrophizing is closely related both to affective and sensory aspects of pain measured by SF-MPQ. Although correlations with other similar measures might be interpreted as indicators of questionnaire validity, relatively strong correlations also increase the risk of possible constructs redundancy (Leung, 2012), which is not desirable when applying questionnaires in clinical practice. Thus, evaluation of prognostic value of pain catastrophizing in the context of other possible pain predictors is important while investigating utility of PCS in clinical practice.

Contrary to our expectations, pain catastrophizing did not predict neither preoperative nor acute postoperative pain on the following day after the surgery in our study. Kim et al. (2015) did not find relationship between preoperative catastrophizing of pain and surgery outcomes in a sample of 138 patients with lumbar spinal stenosis as well. On the other hand, in a study by London et al. (2014), patients scoring high on depression or pain catastrophizing reported clinically worse hand function before and after the treatment regardless of the type of treatment received. In another study of 120 patients who underwent minor hand surgery, the intensity of the pain at the time of suture removal was

related to depression, pain catastrophizing, pain anxiety and self-efficacy (Vrancianu et al., 2010). Pain catastrophizing was related to greater perceived disability after a limited incision open carpal tunnel release in a sample of 82 electrodiagnostically confirmed CTS patients (Lozano, Calderón, Paiva, Ring, 2008).

Our results might have the following limitations: only patients with objectively confirmed and relatively severe CTS were included in the study. It is possible that in these circumstances, PCS reflected not psychological overreaction to pain but objective reaction to CTS related symptoms which were persistent and uncontrollable. Thus, one of the hypotheses might be that in our sample, the meaning of PCS was changed and validity of this scale for pain prediction was lost. However, this hypothesis should be confirmed by a qualitative study asking CTS patients to share their reactions and thoughts by answering PCS questions.

None of the recorded variables predicted pain intensity one day after the surgery. These results might be influenced by the short assessment period and possible effect of analgesic medication used during and after the surgery. Although we expected that patients with a tendency to exaggerate pain would experience more pain immediately after the surgery, this prediction was not confirmed. A longer follow-up time might be needed to eliminate possible effect of pain sedation.

The Lithuanian version of PCS still lacks appropriate cultural adaptation and validation of the construct and norms. Our sample size did not allow us to investigate PCS factor structure, thus we used only total PCS score for pain intensity predictions. Future studies investigating construct validity of Lithuanian PCS version as well as prognostic value of individual PCS scales are suggested.

To conclude, our results do not confirm that pain catastrophizing constitutes a significant predictor of pre- or acute postoperative pain in CTS patients. Sensory dimension of SF-MPQ was a better predictor of preoperative pain. None of the demographic or pain related variables predicted acute postoperative pain. Qualitative and quantitative studies investigating PCS validity are vital to justify the use of this psychological instrument in clinical practice.

References

- Bhatt, N. G., Sheth, M. S., Vyas, N. J. (2015). Relationship of electrodiagnostic findings with severity of symptoms and function in subjects with carpal tunnel syndrome. *International Journal of Therapies and Rehabilitation Research*, 4, 3. DOI:10.5455/ijtrr.00000054.
- Dale, A. M., Harris-Adamson, C., Rempel, D., Gerr, F., Hegmann, K., Silverstein, B. et al. (2013). Prevalence and incidence of carpal tunnel syndrome in US working populations: Pooled analysis of six prospective studies. *Scandinavian Journal of Work, Environment & Health*, 39(5), 495-505. DOI:10.5271/sjweh.3351.
- Das De, S., Vranceanu, A. M., Ring, D. C. (2013). Contribution of kinesophobia and catastrophic thinking to upper-extremity-specific disability. *The Journal of Bone and Joint Surgery (American Volume)* 95(1), 76-81. DOI: 10.2106/JBJS.L.00064.
- Fernandes, L., Storheim, K., Lochting, I., Grotle, M. (2012). Cross-cultural adaptation and validation of the Norwegian pain catastrophizing scale in patients with low back pain. *BMC Musculoskeletal Disorders*, 13, 111. DOI: 10.1186/1471-2474-13-111.
- Juozapavičienė, L. (2015). *Opioidų bei opioidų ir adjuvantų derinio veiksmingumo tyrimas gydant nudegimo skausmą [Efficacy of opioids and opioids-adjuvants combination in burn pain treatment]*. Doctoral Dissertation. Lithuanian University of Health Sciences. Retrieved from: <http://gs.elaba.lt/object/elaba:13066455/>
- Kim, H. J., Park, J. W., Chang, B. S., Lee, C. K., Yeom J. S. (2015). The influence of catastrophizing on treatment outcomes after surgery for lumbar spinal stenosis. *Bone & Joint Journal*, 97-B(11), 1546-1554. DOI: 10.1302/0301-620X.97B11.36016.
- Kremer, R., Granot, M., Yarnitsky, D., Crispel, Y., Fadel, S., Anson Best, L., Nir R-R. (2013). The role of pain catastrophizing in the prediction of acute and chronic postoperative pain. *The Open Pain Journal*, 6, 176-182. DOI: 10.2174/1876386301306010176.
- Lane, L. B., Starecki, M., Olson, A., Kohn, N. (2014). Carpal tunnel syndrome diagnosis and treatment: a survey of members of the American Society for Surgery of the Hand. *Journal of Hand Surgery (American Volume)*, 9(11), 2181-2187. DOI: 10.1016/j.jhssa.2014.07.019.
- Leung, L. (2012). Pain catastrophizing: An updated review. *Indian Journal of Psychological Medicine*, 34(3), 204-217. DOI: 10.4103/0253-7176.106012.
- London, D. A., Stepan, J. G., Boyer, M. I., Calfee, R. P. (2014). The impact of depression and pain catastrophization on initial presentation and treatment outcomes for atraumatic hand conditions. *The Journal of Bone and Joint Surgery*, 96(10), 806-814. DOI:10.2106/JBJS.M.00755.
- Lozano Calderón, S. A., Paiva, A., Ring, D. (2008). Patient satisfaction after open carpal tunnel release correlates with depression. *Journal of Hand Surgery (American Volume)* 33(3), 303-307. DOI: 10.1016/j.jhssa.2007.11.025.

- Makanji, H. S., Zhao, M., Mudgal, C. S., Jupiter J. B., Ring D. (2012). Correspondence between clinical presentation and electrophysiological testing for potential carpal tunnel syndrome. *The Journal of Hand Surgery (European Volume)* 38E(5), 489-495. DOI:10.1177/1753193412461860.
- Melzack, R. (1987). The Short Form McGill Pain Questionnaire. *Pain*, 30, 191-197.
- Nunez, F., Vranceanu A. M., Ring, D. (2010). Determinants of pain in patients with carpal tunnel syndrome. *Clinical Orthopaedics and Related Research*, 468, 3328-3332. DOI:10.1007/s11999-010-1551-x.
- Quartana, P. J., Campbell, C. M., Edwards, R. R. (2009). Pain catastrophizing: a critical review. *Expert Review of Neurotherapeutics*, 9(5), 745-758. DOI:10.1586/ERN.09.34.
- Sonohata, M., Tsuruta, T., Mine, H., Morimoto, T., Mawatari, M (2013). The relationship between neuropathic pain, and the function of the upper limbs based on clinical severity according to electrophysiological studies in patients with carpal tunnel syndrome. *The Open Orthopaedics Journal*, 7(1), 99-102. DOI: 10.2174/1874325001307010099.
- Sousa, V. D., & Rojjanasrirat, W. (2011). Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: A clear and user-friendly guideline. *Journal of Evaluation in Clinical Practice*, 17(2), 268-274. Retrieved from: <http://doi.org/10.1111/j.1365-2753.2010.01434.x>
- Sullivan, M. J. L. (2009). *The Pain Catastrophizing Scale. User Manual*. McGill University, Montreal, Quebec. Retrieved from: <http://sullivan-painresearch.mcgill.ca/pcs.php>
- Sullivan, M. J. L., Bishop, S. R., Pivik, J. (1995). The Pain Catastrophizing Scale: Development and validation. *Psychological Assessment*, 7(4), 524-532. DOI:10.1037/1040-3590.7.4.524.
- Svilpauskaitė, J., Truffert, A., Vaiciene, N., Magistris, M. (2006). Cutaneous silent period in carpal tunnel syndrome. *Muscle & Nerve*, 33(4), 487-493. DOI: 10.1002/mus.20496.
- Tamburin, S., Cacciatori C., Marani, S., Zanette, G. (2008). Pain and motor function in carpal tunnel syndrome. A clinical, neurophysiological and psychophysical study. *Journal of Neurology*, 255, 1636-1643. DOI: 10.1007/s00415-008-0895-6.
- Teunis, T., Bot, A. G., Thornton, E. R., Ring, D. (2015). Catastrophic thinking is associated with finger stiffness after distal radius fracture surgery. *Journal of Orthopaedic Trauma*, 29(10), e414-e420. DOI: 10.1097/BOT.0000000000000342.
- Vranceanu, A. M., Jupiter, J. B., Mudgal, C. S., Ring, D. (2010). Predictors of pain intensity and disability after minor hand surgery. *Journal of Hand Surgery (American Volume)*, 35(6), 956-960. DOI: 10.1016/j.jhssa.2010.02.001.
- Yang, S. Y., Bogosian, A., Moss-Morris, R., McCracken, L. M. (2016). Healthcare professionals' perceptions of psychological treatment for chronic pain in Singapore: challenges, barriers, and the way forward. *Disability and Rehabilitation*, 38 (17), 1643-1651. DOI: 10.3109/09638288.2015.1107635.

SKAUSMO KATASTROFIZAVIMO SĄSAJOS SU PRIEŠOPERACINIO IR ŪMAUS POOPERACINIO SKAUSMO INTENSIVUMU RIEŠO KANALO SINDROMU SERGANČIŲ PACIENTŲ IMTYJE

Aistė Pranckevičienė

Lietuvos sveikatos mokslų universitetas, Neuromokslų institutas, Lietuva

Justina Dimšaitė, Antanas Budėnas

Lietuvos sveikatos mokslų universitetas, Medicinos akademija, Lietuva

Andrius Radžiūnas

Lietuvos sveikatos mokslų universitetas, Neuromokslų institutas, Lietuva

Santrauka. Problema. Moksliniai tyrimai rodo, jog polinkis katastrofizuoti skausmą prognozuoja įvairių su skausmu susijusių būklių gydymo išeitis nepriklausomai nuo objektyvaus sutrikimo ar negalios sunkumo. Šiuo tyrimu siekiama įvertinti dėl riešo kanalo sindromo patiriamo skausmo ir skausmo katastrofizavimo sąsajas prieš medialinio nervo dekompresijos operaciją ir praėjus vienai dienai po jos. **Metodika.** Tyrime dalyvavo 53 pacientai, kuriems riešo kanalo sindromas patvirtintas elektrodiagnostiškai. Pacientai atsakė į *Skausmo katastrofizavimo skalės (Pain Catastrophizing Scale (PCS))* ir *Trumposios McGill skausmo klausimyno formos (A Short Form of the McGill Pain Questionnaire (SF-MPQ))* klausimus prieš operaciją ir pagal vizualinės analogijos skales įvertino patiriamo skausmo intensyvumą prieš operaciją ir praėjus vienai dienai po jos. **Rezultatai.** Praėjus vienai dienai po medialinio nervo dekompresijos operacijos skausmo intensyvumas reikšmingai sumažėjo. Polinkis katastrofizuoti skausmą nekoreliavo su vidutiniu patirto skausmo intensyvu savaite prieš operaciją ar praėjus dienai po jos. Silpna, bet statistiškai reikšminga koreliacija nustatyta tarp suminio PCS skalės įverčio ir didžiausio skausmo intensyvumo po operacijos. Visgi skausmo katastrofizavimas neprognozavo skausmo intensyvumo prieš operaciją ar po jos, kai analizėje buvo atsižvelgta į kitus veiksnius. SF-MPQ sensorinis skausmo rodiklis buvo stipriau susijęs su priešoperaciniu skausmu nei polinkis katastrofizuoti skausmą. Nė vienas iš analizuotų demografinių ar skausmo rodiklių neprognozavo pooperacinio skausmo intensyvumo. **Išvados.** Tyrimo rezultatai nepatvirtino prielaidos, kad polinkis katastrofizuoti skausmą leidžia prognozuoti riešo kanalo sindromu sergančių pacientų prieš operaciją ir po jos patiriamo skausmo intensyvumą.

Pagrindiniai žodžiai: riešo kanalo sindromas, skausmo katastrofizavimas, skausmo intensyvumas, chirurginis gydymas, prognostinis validumas.

Received: 2016-11-09

Accepted: 2017-02-17