

The Prevalence And Character of Chronic Pain After Mastectomy in The Turkish Population: Cross Sectional Prospective Study.

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INTRODUCTION

Postmastectomy pain syndrome (PMPS) is defined as chronic (continuing for three or more months) neuropathic pain affecting the axilla, medial arm, breast, and chest wall after breast cancer surgery. The prevalence of PMPS has been reported to range from 20% to 68%. In this study, we aimed to determine the prevalence of PMPS among mastectomy patients, the severity of neuropathic pain in these patients, risk factors that contribute to pain becoming chronic and the effect of PMPS on life quality.

MATERIALS AND METHODS

This prospective cross-sectional study was approved by the Sakarya University Medical Faculty Ethical Council and included 146 patients ranging in age from 18 to 85 years who visited the pain clinic, general surgery clinic, and oncology clinic and had breast surgery between 2012 and 2014. Patients were divided into two groups according to whether they met PMPS criteria: pain of the at axilla, arm, shoulder, chest wall, scar tissue or breast at least 3 months after breast surgery. All patients gave informed consent prior to entry into the study. Patient medical records were collected and pain and quality of life were evaluated by the visual analog scale (VAS) for pain, short form of the McGill Pain Questionnaire (SF-MPQ), Douleur Neuropathique 4 (DN-4) and short form-36 (SF-36).

RESULTS

Patient mean age was 55.22 ± 11.83 (33-83). PMPS prevalence was 36%. Mean scores on the VAS, SF-MPQ and DN-4 in PMPS patients were 1.76 ± 2.38 (0-10), 1.73 ± 1.54 (0-5), 1.64 ± 2.31 (0-8) respectively. Of these patients, 31 (23.7%) had neuropathic pain characteristics, and 12 (9.2%) had phantom pain according to the DN-4 survey. Patients who had modified radical mastectomy were significantly more likely to develop PMPS than patients who had breast protective surgery ($p = 0.028$; Table 1). Only two (2.4%) of PMPS patients had received proper treatment (anticonvulsants or opioids).

		Non-PMPS (n = 47)	PMPS (n = 84)	Total (n = 131)	p-value
Surgery type	MRM -ALND	34 (72.3)	63 (75)	97 (74.0)	0.900
	BCS - ALND	13 (27.7)	21 (25)	34 (26.0)	0.900
Tumor diameter (cm)		3.32 ± 1.82	2.93 ± 1.22	3.07 ± 1.47	0.145
Grade	1	5 (10.6)	10 (11.9)	15 (11.5)	0.379
	2	23 (48.9)	50 (59.5)	73 (55.7)	0.379
	3	19 (40.4)	24 (28.6)	43 (32.8)	0.379
	4	0	0	0	0.379
Estrogen receptor involvement		34 (72.3)	57 (68.7)	91 (70)	0.811
Progesterone receptor involvement		28 (59.6)	51 (61.4)	79 (60.8)	0.982
Sentinel LR		20 (42.6)	45 (53.6)	65 (49.6)	0.304
Number of removed sentinel nodes		3.4 ± 4.27	3.22 ± 2.85	3.28 ± 3.32	0.593
Number of removed axillar nodes		14.09 ± 8.22	12.43 ± 7.07	13.03 ± 7.52	0.844
Tumor localization within breast	Upper lateral quarter	31 (66)	49 (59.8)	80 (62)	0.483
	Upper interior quarter	5 (10.6)	14 (17.1)	19 (14.7)	0.483
	Lower lateral quarter	10 (21.3)	13 (15.9)	23 (17.8)	0.483
	Lower interior quarter	0 (0)	3 (3.7)	3 (2.3)	0.483
	Retroareolar	1 (2.1)	3 (3.7)	4 (3.1)	0.483
Lymphedema	+	8 (17)	12 (14.3)	20 (15.3)	0.869
Neoadjuvant chemotherapy	+	1 (2.2)	7 (8.3)	8 (6.2)	0.259
Postoperative radiotherapy	+	27 (58.7)	66 (78.6)	93 (71.5)	0.028*
Postoperative chemotherapy	+	43 (93.5)	77 (91.7)	120 (92.3)	1.000
Postoperative hormone therapy	+	30 (65.2)	51 (60.7)	81 (62.3)	0.751

Data are shown as means \pm standard deviation and n (%).

*Significant difference: $p < 0.05$

MRM: modified radical mastectomy; BCS: breast-conserving surgery; ALND: axillar lymph node dissection

Table 1. Potential risk factors for PMPS

CONCLUSIONS

PMPS seriously impacts patients emotional situation, daily activities, and social relationships and at is a major economic burden for health systems. We conclude that the rate of PMPS among patients receiving breast cancer surgery in Turkey is 64.1%, and that challenges to proper treatment of these patients deserve further investigation.

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REFERENCES

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