

The Impact of Preoperative Education on Anxiety, Depression and Post-Mastectomy Outcomes in Egypt a Randomized Clinical Trial

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Background: Is to evaluate the impact of preoperative education on postanesthetic recovery, postoperative anxiety, depression, pain, and ipsilateral lymphedema.

Subjects & Methods: This randomized controlled study was conducted on 40 patients with breast cancer. Patients were divided into control group (ordinary care) or intervention group (education material was delivered 5 days preoperative). Premedication was omitted and all patients received general anesthesia followed by paravertebral block at ipsilateral site of surgery at the level of thoracic vertebra 3, in lateral position. Main Outcome measures the change and difference in anxiety and depression in both groups using the Hamilton and Beck scales respectively at preoperative time, 10 and 60 days postoperatively (time 2 and 3 respectively). The second outcome detects: the difference in the anesthetic recovery using Fast Track Recovery Score (FTRS) 2 min intervals after discontinuation of anesthesia, the difference between both arm circumferences at time 2 and post operative pain intensity that was measured

by both Numeric Rating Scale (NRS) every 4 hours for 24 hours post operatively and brief pain scale at time 2 and 3.

Results: A considerable degree of anxiety and depression was observed preoperatively in both groups followed by a released tension at time 2. Both parameters went up at time 3, with higher anxiety in the control group compared with preoperative reading. The individual analysis of depression showed decreased level of sadness and crying at time 3 and more elevation of self consciousness at time 2 and 3 in the intervention group. FTRS was the same in both groups. Pain intensity was lower in intervention group for 8 hours postoperative. Lymphedema and delayed pain sensation were early reported in the intervention group.

Conclusion: Preoperative education program that used in this study did not reduce postoperative anxiety and depression or enhance the anesthetic recovery. However, it influenced postoperative sadness, crying, pain and lymphedema positively.

Keywords: Preoperative education, Postoperative depression, Anxiety, Pain, Surgical outcome.

Abbreviations:

FTRS: Fast Track Recovery Score

NRS: Numeric Rating Scale

ASA II: American Society of Anesthesiologists physical status II

MMSE: Mini-Mental State Examination

BPI: Brief Pain Inventory

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INTRODUCTION

Although ordinary preoperative visit can help in decreasing patients' natural anxiety, excessive degrees of anxiety before major operations or surgery for cancers can lead to major pathophysiological responses (Matsushita, et al. 2005).

Mastectomy is one of the surgical procedures that are associated with severe stress. Patients with breast cancer may suffer from disturbance of sleep, intolerable postoperative pain, chronic breast pain syndrome, and poor quality of life (Stavrou, et al. 2009). Accordingly, accurate emotional and educational support is essential to master and overcome such medical crisis (Spalding, 2003).

Proper preoperative patient education, that is considered as a method of more communication

between health care providers and patients, and concerns with providing better explanation of disease course, best line of treatment, anesthetic technique, postoperative pain relief and surgical procedure, might reduce the anxiety and improve postoperative outcomes (Pritchard, 2009 and Mumford, et al. 1982). No data have been published in Egypt about the evaluation of education program on post operative anxiety and depression and their potentially adverse effects on surgical outcome of cancer patients. So, the aim of the current study is to evaluate the impact of preoperative education for Egyptian female patients with breast cancer undergoing modified mastectomy. Studying post anesthetic recovery score, postoperative anxiety depression, pain, and ipsilateral arm swelling.