



REVISTA BRASILEIRA DE ANESTESIOLOGIA

Official Publication of the Brazilian Society of Anesthesiology
www.sba.com.br



REVIEW ARTICLE

Clinical application of thoracic paravertebral anesthetic block in breast surgeries



Sara Socorro Faria^a, Renato Santiago Gomez^{b,c,*}

^a Universidade Federal de Goiás (UFG), Goiânia, GO, Brazil

^b Department of Surgery, Faculdade de Medicina da Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, MG, Brazil

^c Hospital das Clínicas da Faculdade de Medicina da Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, MG, Brazil

Received 11 July 2013; accepted 29 July 2013

Available online 26 November 2014

KEYWORDS

Paravertebral block;
Breast cancer;
Postoperative
complications

Abstract

Introduction: Optimum treatment for postoperative pain has been of fundamental importance in surgical patient care. Among the analgesic techniques aimed at this group of patients, thoracic paravertebral block combined with general anesthesia stands out for the good results and favorable risk–benefit ratio. Many local anesthetics and other adjuvant drugs are being investigated for use in this technique, in order to improve the quality of analgesia and reduce adverse effects.

Objective: Evaluate the effectiveness and safety of paravertebral block compared to other analgesic and anesthetic regimens in women undergoing breast cancer surgeries.

Methods: Integrative literature review from 1966 to 2012, using specific terms in computerized databases of articles investigating the clinical characteristics, adverse effects, and beneficial effects of thoracic paravertebral block.

Results: On the selected date, 16 randomized studies that met the selection criteria established for this literature review were identified. Thoracic paravertebral block showed a significant reduction of postoperative pain, as well as decreased pain during arm movement after surgery.

Conclusion: Thoracic paravertebral block reduced postoperative analgesic requirement compared to placebo group, markedly within the first 24 h. The use of this technique could ensure postoperative analgesia of clinical relevance. Further studies with larger populations are necessary, as paravertebral block seems to be promising for preemptive analgesia in breast cancer surgery.

© 2014 Sociedade Brasileira de Anestesiologia. Published by Elsevier Editora Ltda. All rights reserved.

* Corresponding author.

E-mail: renatogomez2000@yahoo.com.br (R.S. Gomez).

PALAVRAS-CHAVE

Bloqueio
paravertebral;
Câncer de mama;
Complicações
pós-operatórias

Aplicação clínica do bloqueio anestésico paravertebral torácico em operações de mama**Resumo**

Introdução: O adequado tratamento da dor pós-operatória tem sido de fundamental importância nos cuidados com o paciente cirúrgico. Entre as técnicas de analgesia direcionadas para esse grupo de pacientes, o bloqueio paravertebral torácico combinado com a anestesia geral se destaca pelos bons resultados e pela favorável relação risco-benefício. Muitos anestésicos locais e outros fármacos adjuvantes vêm sendo investigados para uso nessa técnica, com vistas a melhorar a qualidade da analgesia e reduzir os efeitos adversos.

Objetivo: Avaliar a eficácia e a segurança do bloqueio paravertebral em comparação com outros regimes analgésicos e anestésicos em mulheres submetidas a cirurgias para câncer de mama.

Métodos: Revisão integrativa da literatura de 1966 a 2012, feita por meio de termos específicos nos bancos de dados informatizados, de artigos que investigaram as características clínicas e os efeitos adversos e benéficos do bloqueio paravertebral torácico.

Resultados: No período selecionado, foram identificados 16 estudos randomizados que preenchem os critérios de seleção estabelecidos para essa revisão bibliográfica. O bloqueio paravertebral torácico demonstrou uma redução significativa da dor pós-operatória, bem como diminuição da dor durante movimentos do braço após a cirurgia.

Conclusão: O bloqueio paravertebral torácico reduziu a necessidade pós-operatória de analgésicos quando comparado ao grupo placebo, notadamente dentro das primeiras 24 horas. O emprego dessa técnica poderia garantir uma analgesia pós-cirúrgica de relevância clínica. Novos estudos, com maiores grupos populacionais, fazem-se necessários, uma vez que o bloqueio paravertebral parece promissor em analgesia preemptiva para cirurgia de câncer de mama.

© 2014 Sociedade Brasileira de Anestesiologia. Publicado por Elsevier Editora Ltda. Todos os direitos reservados.

Introduction

In recent years, the number of new cases of breast cancer has increased, with an estimated risk of 52 cases per 100 thousand women.¹ Similar to that seen in the world population, breast cancer became the leading cause of mortality among women.^{2,3} About 40% of the patients experience clinically significant acute postoperative pain (>5 on the Visual Analog Scale). This indicates that, as in other surgical procedures, pain treatment is not sufficient. Moreover, acute postoperative pain is a major risk factor for chronic pain development in women following breast surgery.⁴ Therefore, a therapeutic approach to pain after breast cancer surgery is necessary.

Pain control after breast surgery procedures is critical. In addition, there is the need for treatment of postoperative comorbidities, as well as nausea and vomiting, considered as the three main variables related to restriction of hospital discharge in patients undergoing surgical procedures, such as quadrantectomy and mastectomy. Nausea and vomiting are relatively under control with the advent of new antiemetic agents. Paravertebral blockade has been shown to be a viable option to the classical multimodal analgesia, particularly in recent years with the use of opioids and anti-inflammatory drugs.⁵

With the advent of ultrasound to guide anesthetic blocks, its use has become a preoperative assessment tool that predicts the possibility of performing a neuraxial blockade.⁶ The use of this ancillary study can help prevent injury to

structures such as vessels and pleura, as well as allowing accurate injection of local anesthetic under direct visualization. A previous study reported that thoracic paravertebral block (TPVB) may be considered an efficient option that provides anesthesia and postoperative (PO) analgesia for breast surgery, as well as a reduction in pain intensity and nausea and vomiting drug consumption.⁷

Despite the growing number of articles assessing the postoperative management of acute and chronic pain, we found no integrative review assessing the topic in question. Thus, the aim of this study was to assess the efficacy and safety of TPVB, compared with other analgesics and anesthetic regimens, to control post-surgical pain in women undergoing breast cancer surgery.

Methods

Integrative literature review of randomized and/or double-blind studies, with population and hospital approaches. The search was conducted in the following computerized databases during February 2013: PubMed (<http://www.pubmed.gov>), Cochrane Controlled Trials Register (Central, The Cochrane Library – <http://www.thecochranelibrary.com.br>), Embase (<http://www.embase.com>), and Lilacs (<http://lilacs.bvsalud.org>).

The limits used for literature search were: English or Spanish publications, female human, surveyed from 1966 to 2012. The terms used to identify the studies were: breast surgery [MeSH],

Download English Version:

<https://daneshyari.com/en/article/2750133>

Download Persian Version:

<https://daneshyari.com/article/2750133>

[Daneshyari.com](https://daneshyari.com)