

# Subarachnoid neurolytic blockade in patient with refractory cancer pain. Case report\*

*Bloqueio neurolítico subaracnoideo em paciente com dor oncológica refratária. Relato de caso*

José Osvaldo Barbosa Neto<sup>1</sup>, Ângela Maria Sousa<sup>2</sup>, Sílvia Maria Machado Tahamtani<sup>2</sup>, Hazem Adel Ashmawi<sup>3</sup>

\*Received from the Cancer Institute of the State of São Paulo. Clinicas Hospital, School of Medicine, University of São Paulo. São Paulo, SP.

## ABSTRACT

**BACKGROUND AND OBJECTIVES:** The use of subarachnoid neurolytic blockade to control pain has decreased in recent years due to the introduction of new techniques, but it is still important to control refractory cancer pain. This study aimed at presenting a case of cancer pain where this technique was used to control pain.

**CASE REPORT:** Male patient, 45 years old, with locally advanced anal canal squamous cell carcinoma and ulcerated lesion in perineal region with enterovesical fistula and local infection. Patient had severe pain with numerical verbal scale (NVS) = 10 and was being pharmacologically treated with high opioid doses and adjuvants without good response. Subarachnoid neurolytic blockade was induced with 5% phenol with significant pain relief; 20 minutes after the procedure patient has referred 80% relief. Improvement has remained for 21 days when patient died due to infectious complications.

**CONCLUSION:** This case has illustrated the use of subarachnoid blockade with 5% phenol to control cancer pain. The conclusion is that for selected cases, where life expectation is limited, this technique may be successfully used.

**Keywords:** Analgesia, Cancer pain, Neurolytic blockade.

## RESUMO

**JUSTIFICATIVA E OBJETIVOS:** O uso de bloqueio neurolítico subaracnoideo no controle de dor tem diminuído nos últimos anos devido à introdução de novas técnicas, mas ainda tem importância no controle de dor oncológica refratária. O objetivo deste estudo foi apresentar um caso de dor oncológica, em que esta técnica foi utilizada para controle da dor.

**RELATO DO CASO:** Paciente do sexo masculino, 45 anos, diagnosticado com carcinoma espinocelular de canal anal localmente avançado e lesão ulcerada em região perineal com presença de fistula retovesical e infecção local. O paciente apresentava dor intensa com escala verbal numérica (EVN) = 10 e recebia tratamento farmacológico com doses altas de opioide e adjuvantes sem boa resposta. Foi realizado bloqueio neurolítico subaracnoideo com fenol a 5% e após realização do bloqueio houve melhora significativa do quadro doloroso, tendo paciente referindo alívio de 80% após 20 minutos do procedimento. A melhora permaneceu até o 21º dia após bloqueio quando o paciente foi a óbito devido complicações infecciosas.

**CONCLUSÃO:** O caso ilustrou o uso do bloqueio subaracnoideo com fenol a 5% para controle de dor oncológica. Conclui-se que para casos selecionados, onde a expectativa de vida é limitada, esta técnica pode ser empregada com sucesso.

**Descritores:** Analgesia, Bloqueio neurolítico, Dor oncológica.

## INTRODUCTION

Pain is a prevalent symptom among cancer patients and still remains a factor generating major morbidity for patients and their families. In a broad review of the last 40 years, general pain prevalence among these patients was 53%, and from 58% to 69% in patients with advanced disease<sup>1</sup>.

Cancer pain management is currently oriented by the World Health Organization's analgesic ladder and is able to effectively manage 80% to 90% of patients with drug therapy. However, 10% to 20% of cancer patients do not adequately respond to drugs and benefit from interventional pain therapy<sup>2,3</sup>.

Subarachnoid neurolytic blockade is an effective interventional technique used to control cancer pain. Its use has decreased in recent years due to the introduction of new interventional therapy modalities, but this technique is still important to control refractory cancer pain<sup>4</sup>.

1. Anesthesiologist of the Cancer Institute of the State of São Paulo, Clinicas Hospital, School of Medicine, University of São Paulo (HC-FMUSP). São Paulo, SP, Brazil.

2. Anesthesiologist, Doctor by the School of Medicine, University of São Paulo (FMUSP); Supervisor of the Pain Control Team of the Cancer Institute of the State of São Paulo, Clinicas Hospital, School of Medicine, University of São Paulo (HC-FMUSP). São Paulo, SP, Brazil.

3. Physician, Free Professor by the School of Medicine, University of São Paulo (FMUSP); Supervisor of the pain control Team, Anesthesiology Division, Clinicas Hospital, School of Medicine, University of São Paulo (HC-FMUSP). São Paulo, SP, Brazil.

Submitted in October 02, 2012.

Accepted for publication in February 27, 2013.

Correspondence to:

José Osvaldo Barbosa Neto, M.D.

Av. Dr. Enéas de Carvalho Aguiar, 255 - 8º A

Serviço de Anestesia - Prédio dos Ambulatórios

05403-000 São Paulo, SP.

E-mail: osvbarbosa@yahoo.com.br

This study aimed at reporting a case of cancer pain refractory to drug therapy where this technique was used to control pain.

## CASE REPORT

Male patient, 45 years old, with locally advanced anal canal squamous cell carcinoma who was referred to the Pain Management Center of the institution for evaluation of difficult to control pain.

Patient had ulcerated lesion in perineal region with presence of retrovesical fistula and local infection, in addition to signs of skin infection on right thigh.

CT images illustrate the extension of the lesion (Figure 1).

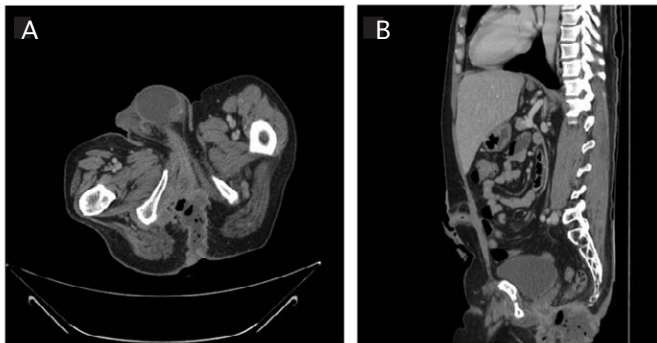


Figure 1 – CT of abdomen and pelvis.

A: axial slice showing infected lesion with gaseous content in perineal region. B: coronal slice showing infected lesion in perineal region and extending to the skin.

The surgical team considered the tumor inoperable and several chemotherapy and radiation therapy cycles had not been successful to control the lesion. Ultimately, we decided for protective colostomy and referral to exclusive palliative care.

Patient reported severe pain in perineal region, with numerical verbal scale (NVS) = 10, continuous, burning and stabbing. Patient also referred incidental, spontaneous and disabling pain. He had difficulty to walk and to remain sat down, so he would spend most of the time standing up. He took up to 300 mg morphine to obtain pain relief.

His normal prescription was transdermal fentanyl (250 µg/h), rescue morphine (120 mg) up to every four hours, dipirone (2 g) every 6 hours, amitriptyline (75 mg) at night, diclofenac (50 mg) every eight hours, and gabapentin (900 mg/d). However, in spite of such high analgesic doses, he remained with severe pain.

Due to refractoriness to drug therapy and after signing the free and informed consent term, patient was submitted to subarachnoid neurolytic blockade with 5% phenol, in a total of 2 mL, in L<sub>5</sub>-S<sub>1</sub> interspace in the sitting position.

Pain has significantly improved after blockade, with 80% relief 20 minutes after the procedure, with NVS = 1-2 most of the time,

which has led to rescue drugs withdrawal and to less severe crises of incidental pain (NVS = 6).

Improvement remained until the 21<sup>st</sup> day after blockade when patient died due to infectious complications of right leg cellulites.

## DISCUSSION

Pain is feared by cancer patients and up to 20% of them are not adequately managed. The use of timely interventional therapy may provide a dramatic decrease in opioid consumption and decrease morbidity caused by pain to this group of patients<sup>5</sup>. Our case has illustrated the use of subarachnoid blockade with 5% phenol to control perineal pain refractory to drug therapy with high opioid doses associated to adjuvants.

Among the advantages of this technique, there is a good cost/benefit ratio for the patient with less follow up visits as compared to other techniques<sup>6</sup>. Major associated risks are short duration of analgesia and the possibility of developing lower limbs weakness and sphincter dysfunction<sup>6</sup>.

In our case, patient had already been submitted to colostomy which made irrelevant the risk for sphincter dysfunction. Since patient had already major ambulation limitations, the benefit of pain relief would overcome the risk for permanent motor block.

Since the effect of this block lasts no more than six months, patients indicated for such therapy should have limited life expectancy and untreatable and well localized disease<sup>7</sup>.

Most common chemicals are 50%-100% alcohol and 7%-12% phenol. We decided for phenol, which is a hyperbaric solution with regard to CSF. Using this agent's property it is possible to limit the appearance of side effects by concentrating the agent on sacral fibers and leaving the patient in the sitting position for a prolonged time (saddle block). In addition, phenol induces a higher intensity blockade with less risk for chemical neuritis<sup>5</sup>.

The conclusion was that, for selected cases where life expectancy is limited, this technique may be successfully used to rapidly control cancer pain.

## REFERENCES

1. van den Beuken-van Everdingen MH, de Rijke JM, Kessels AG, et al. Prevalence of pain in patients with cancer: a systematic review of the past 40 years. *Ann Oncol.* 2007;18(9):1437-49.
2. Burton AW, Hamid B. Current challenges in cancer pain management: does the WHO ladder approach still have relevance? *Expert Rev Anticancer Ther.* 2007;7(11):1501-2.
3. Miguel R. Interventional treatment of cancer pain: the fourth step in the World Health Organization analgesic ladder? *Cancer Control.* 2000;7(2):149-56.
4. Sloan PA. The evolving role of interventional pain management in oncology. *J Support Oncol.* 2004;2(6):491-503.
5. Watanabe A, Yamakage M. Intrathecal neurolytic block in a patient with refractory cancer pain. *J Anesth.* 2011;25(4):603-5.
6. Chambers WA. Nerve blocks in palliative care. *Br J Anaesth.* 2008;101(1):95-100.
7. Gerbershagen HU. Neurolysis. Subarachnoid neurolytic blockade. *Acta Anaesthesiol Belg.* 1981;32(1):45-57.

---

ERRATUM

## **Subarachnoid neurolytic blockade in patient with refractory cancer pain. Case report**

Bloqueio neurolítico subaracnoideo em paciente com dor oncológica refratária. Relato de caso

José Osvaldo Barbosa Neto, Ângela Maria Sousa, **Silvia Maria Machado Tahantami**, Hazem Adel Ashmawi

**Rev Dor.** 2013;14(1):76-7

The correct spelling of Dr. Silvia is **Silvia Maria Machado Tahamtani**.

Regards,

José Osvaldo Barbosa Neto